EE-400R Broadband Router
User Manual

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FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against radio interference in a commercial environment. This equipment can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instructions in this manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures are necessary to correct the interference.

CE Declaration of Conformity

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022/A1 Class B, and EN 50082-1. This meets the essential protection requirements of the European Council Directive 89/336/EEC on the approximation of the laws of the member states relation to electromagnetic compatibility.

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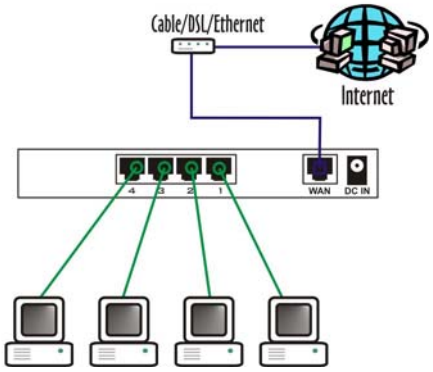
Introduction

Congratulations on your purchase of this outstanding Broadband Router EE-400R. This product is the perfect option to connect a group of PCs to a high-speed Broadband Internet connection or to an Ethernet based Backbone (ETTH/ETTB: Ethernet to the Home/Building). Configurable as a DHCP server, this product is the only externally recognized server device on your local area network (LAN). Thus even a non-technical person will easily configure it to meet other popular applications.

This product does not only provide a complete solution to share the Internet bandwidth, it also serves as an Internet Firewall to protect your LAN data from being accessed by outside intruder/hacker. Since all incoming data packets can be analyzed or monitored, all unwanted packets may be filtered-out and be recorded as an intrusion event. EE400-R can also be configured to block some internal LAN user's access to the Internet for management purpose.

Usage Diagram:



Secure Internet Access via Cable/DSL Modem.

Chapter 1 - Features

- **Connects to 10/100M Broadband (cable or DSL) modem or Ethernet backbone for Internet Surfing.**
- **Multiple WAN connection type:**
  - **Static IP** : for lease line or router-router interconnect**.**
  - **DHCP client** : for most cable modem service.
  - **PPPoE** : for Dial-up ADSL service,
  - **PPTP client** : for some European Dial-up ADSL or L2-VPN application
- **Equipped with a 4-port 10/100M switched Hub for LAN users.**
- **DHCP Server/ DNS proxy support (can save an extra PC/Server in LAN).**
  All the networked computers in LAN can retrieve TCP/IP setting (IP address, subnet mask, gateway, DNS) automatically from this device.
- **Simultaneously act as both DHCP Server on the LAN and a DHCP Client on the WAN for most easy application.**
- **Connects multiple LAN PCs to the Internet with only one dynamic-assigned IP address (NAT mode) or a range of legal IP address (NAT/Routing mode)**

- **Web-based configuring**
  it is configurable through any networked computer's web browsers using Internet Explorer or Netscape browser.
- **Allow/Deny remote administration through WAN connection by Web browser.**
- **Firewall capability to protect LAN PCs from outside intruder access/attack.**
  Avoid unwanted packet from WAN (Wide Area Network) and provide a system event log to record intrusion information. (Date/Time, Source IP address & Port)
- **LAN user Access privilege**
  Administrator can arrange interior LAN user's access privilege to Internet by IP address, TCP/IP port service, URL name keywords and 24-hour time zone.
- **Virtual Server (Port forwarding) function**
  Internet servers (WWW, FTP, E-mail …) in LAN could be virtually exposed to WAN for outside Internet user access. This is a useful and secure network deployment for Internet servers.
- **DMZ (De-Militarized Zone) Host**
  Administrator can expose a host PC in LAN to the Internet without any firewall protection mechanism. This option allows a full two-way communication between the local host PC and remote Internet node. (ex. bi-directional games, video/audio conferences …)
- **Multi DMZ Host support**
  In static IP configuration with a range of legal IP address, Administrator could totally expose more host PCs in LAN to the Internet according to LAN/WAN IP address mapping.

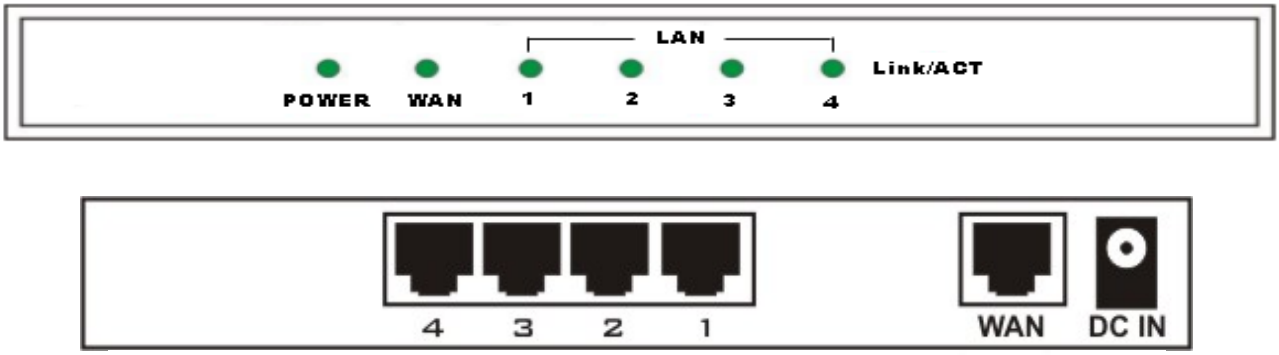
Package Content

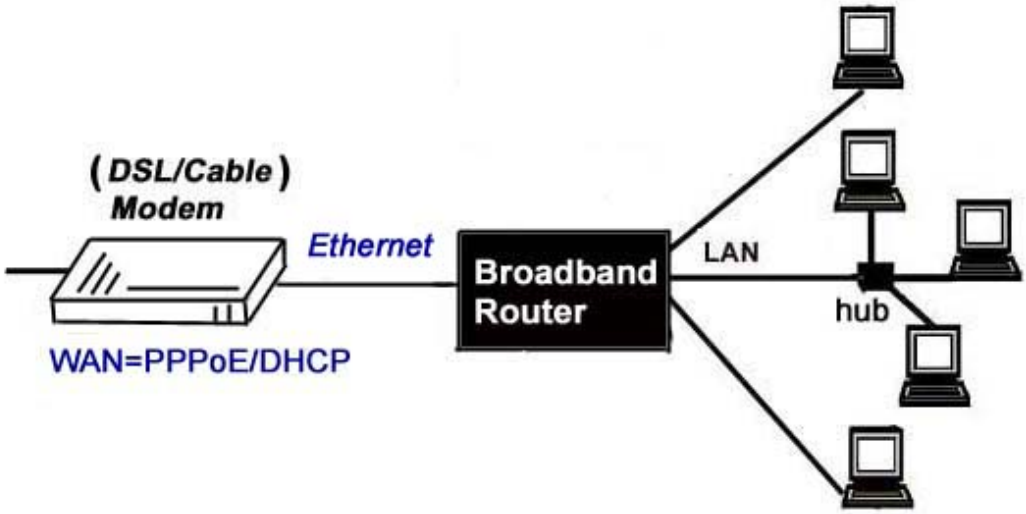
- One EE-400R
- One power adapter
- One Warranty card
- One paper manual OR one manual CD

Requirement

- One Ethernet based broadband Internet connection (Cable/ADSL modem or other router)
- One PC with a network card and TCP/IP protocol stack Installed
- Microsoft Internet Explorer browser (V.4.75 or above)

Panel – <u>Wire Diagram</u>





- The modem should be connected to the router's WAN port with an Ethernet cable(Cat 5/Cat 5e)
- Power adapter should be connected to the power port on the router
- Computers are to be connected to port 1-4 on the router (Typically with a straight through cable Cat 5/Cat 5e)

Chapter 2 - Quick install

The following steps are setup processes for most common broadband internet service providers.

This section will be divided into three parts. Part one is for **cable internet setup**, part two is for **DSL internet setup** and part three is for **Macintosh Users**.

Note the **http://192.168.8.1** is the main console page for the EE-400R. Internet connection is **NOT** required upon installation of this router. Any computer that is connected to the router's port 1-4 is capable of changing the settings on the router. It does not have to be a designated port or computer to change the settings of the router.

Before you start

Make sure the internet connection from your ISP is working. Check to see if there is a connection coming through your ISP (modem) to your computer. Also, check and see if the lights are properly on when the router is connected with the computer(s) and the modem.

Part 1 Cable internet setup

Section 1

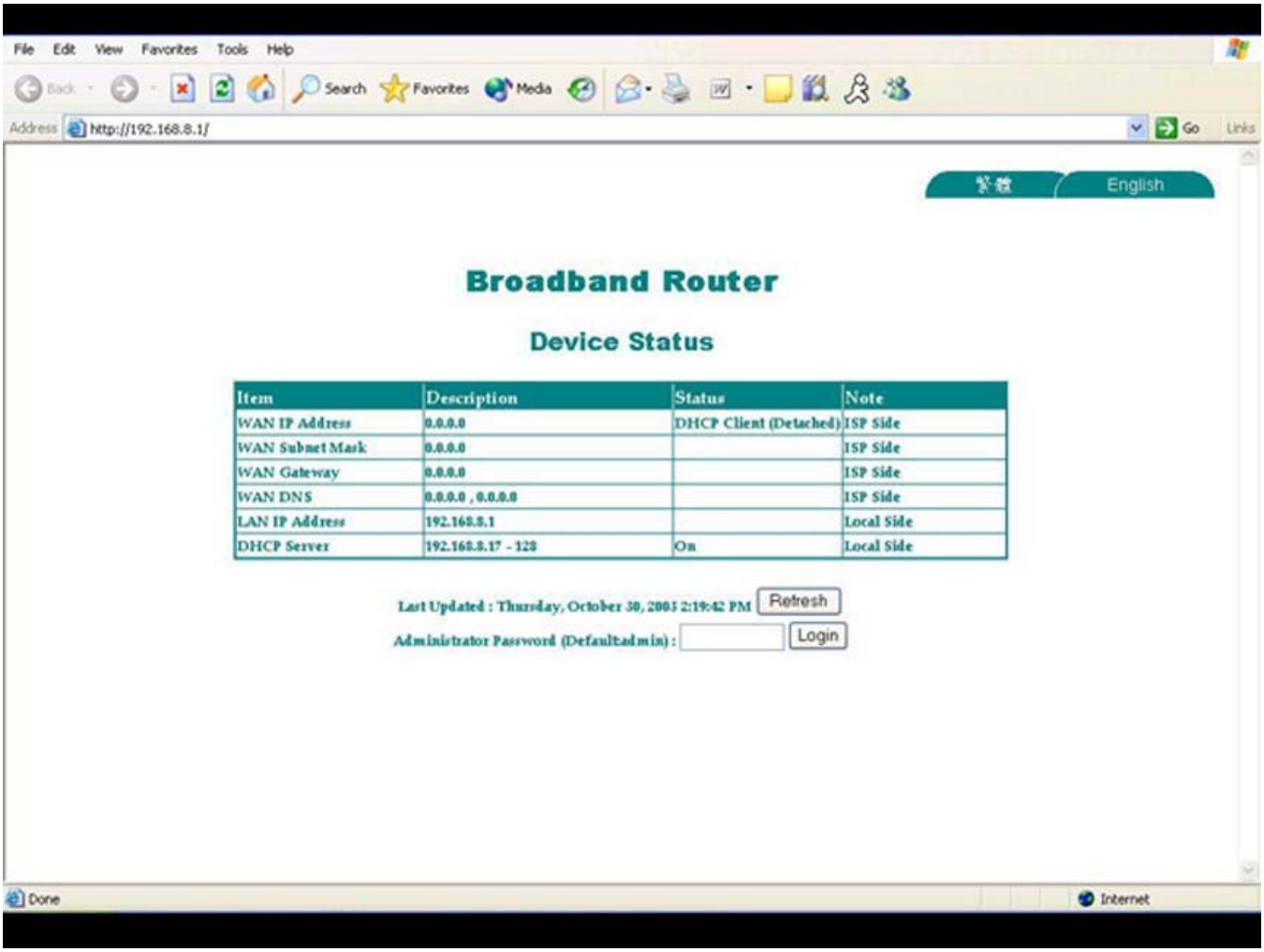
1. Turn off the cable modem and the router
2. Connect an Ethernet cable from the cable modem to the WAN port of the router
3. Connect your computers to ports 1-4 on the router
4. Power on the router
5. Power on the modem
6. Power on your computer

__Note__ Make sure the WAN LED light and ports 1-4 LED lights are ON at the front panel of the router.

Section 2

1. At the desktop (**Windows** based Operating System). Go to '**Start**' > '**Run**' and input this address: http://192.168.8.1 and press 'enter'
2. Your internet browser should automatically open up the 'Broadband Router' page

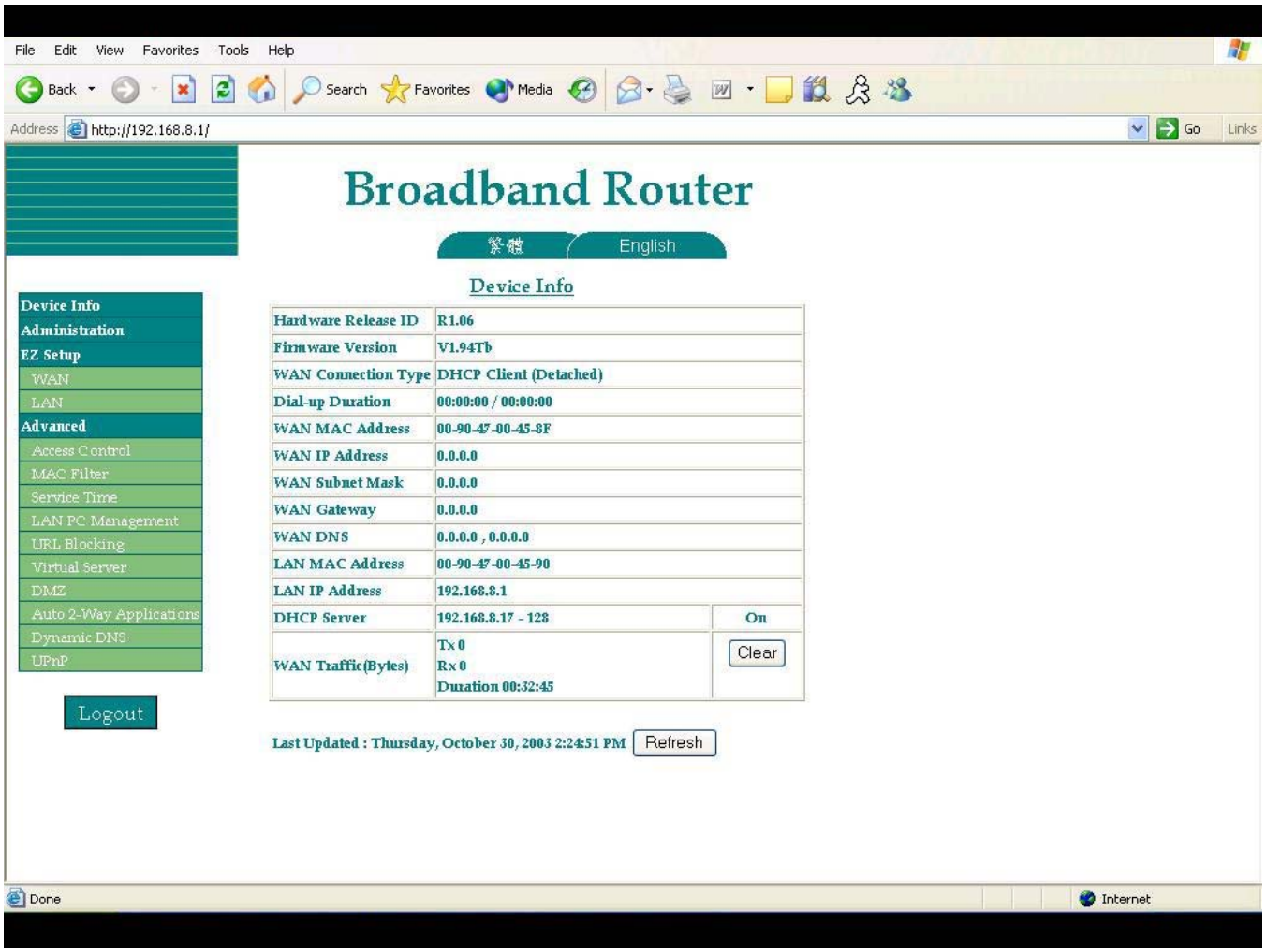
Example:


File Edit View Favorites Tools Help
Search Favorites Media
Address http://192.168.8.1/
Go Links
English
Broadband Router
Device Status
Item | Description | Status | Note
WAN IP Address | 0.0.0.0 | DHCP Client (Detached) | ISP Side
WAN Subnet Mask | 0.0.0.0 | | ISP Side
WAN Gateway | 0.0.0.0 | | ISP Side
WAN DNS | 0.0.0.0 , 0.0.0.0 | | ISP Side
LAN IP Address | 192.168.8.1 | | Local Side
DHCP Server | 192.168.8.17 - 128 | On | Local Side
Last Updated : Thursday, October 30, 2003 2:19:42 PM
Refresh
Administrator Password (Default:admin) :
Login
Done
Internet

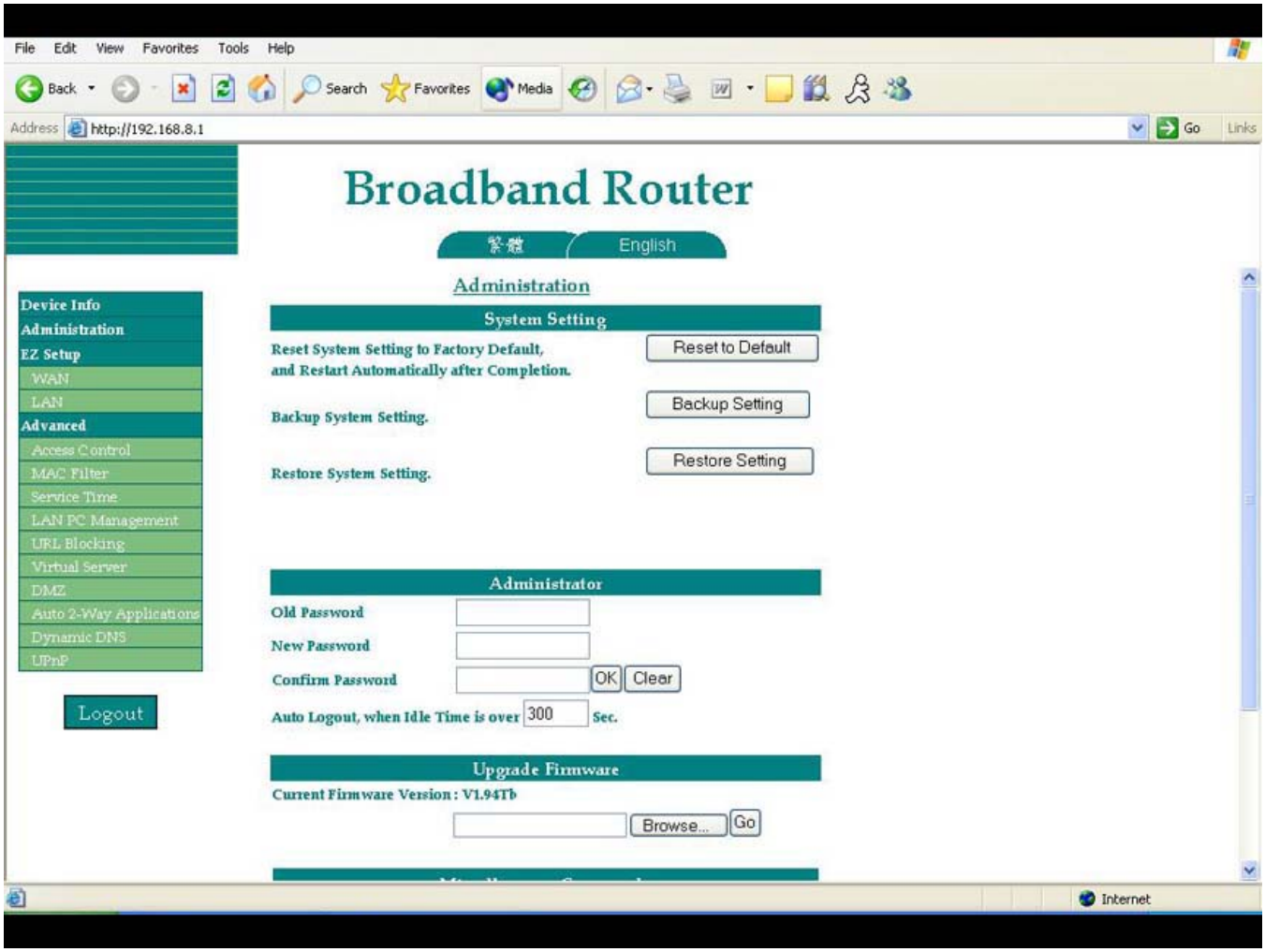
3. The password for the **Administration Password** is '**admin**'. It is case sensitive so make sure the CAPS key is not on. Once '**admin**' is entered, click on '**Login**' to enter the router's configuration page.

Note Make sure the '**WAN IP address**', '**WAN Subnet Mask**', '**WAN Gateway**', and '**WAN DNS**' are filled with numbers. This indicates that the router is communicating with the modem (your ISP). If you are able to get those numbers, most likely you're on the internet.

Note the next step is for those who can log onto the router page but cannot get an internet connection through the ISP. (WAN IP addresses all show 0's)



4. The page should look like this after you have logged onto the next page. The next step is to click on the '**Administration**' to the left side of the screen.



5. At the bottom of the '**Administration**' section you should see a button says '**Clone MAC**'. Click on '**Clone MAC**' (this will let the router copy the MAC address on the Ethernet adapter.)

6. There should be a confirmation after you click on the '**Clone MAC**' button. Acknowledge it and restart the computer afterwards. If you still have trouble getting an internet connection or have other questions please follow the instructions in our **FAQ** section.

Part 2 DSL internet setup

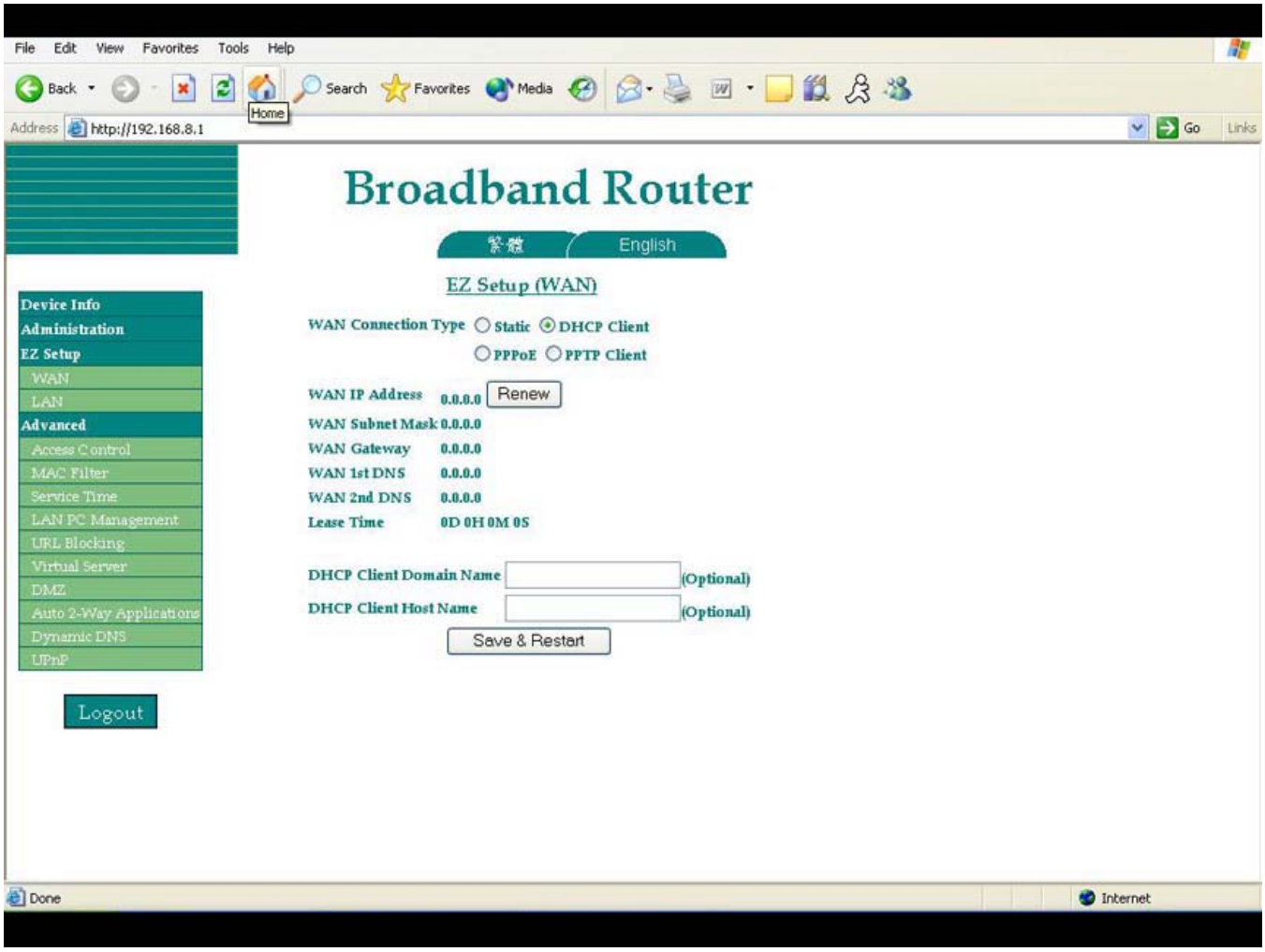
Section 1

1. Make sure that DSL account Login ID and Password is in hand (i.e.: **username@your_internet_company.net**)
2. Connect the **DSL modem** to the **WAN Port** on the router with an **Ethernet cable**
3. Connect your computer(s) to port 1-4 on the router with Ethernet cable(s)
4. Turn the computer(s), DSL modem, router **ON** if they are off at this point

__Note__ Make sure the WAN LED light and ports 1-4 LED lights are ON in the front panel of the router.

Section 2

1. At the desktop (**Windows** based Operating System). Click '**Start**' > go to '**Run**' > and type in this address in the box: http://192.168.8.1 and press 'enter'. Your internet browser should automatically open up the '**Broadband Router Status**' page (See Part 1 – Section 2 {**2**} for image). If the page shows 'Page cannot be displayed' or blank then please go to our **FAQ** section for more helpful information.
2. Enter default password '**admin**' in the '**Administration Password**' column (make sure **CAPS** key is **OFF**) and click '**Login**'
3. Once you have successfully logged onto the Broadband Router page, you should see a list of various links on the left side of your screen. (See Part 1 – Section 2 – {**4**} for image)
4. At this point the '**WAN IP**' addresses should show all 0's. It is usual and common because the router hasn't been setup to have a connection between your ISP and the EE-400r. Please click on '**WAN'** under '**EZ Setup'** and the page should look like this after:



Note In case if the **WAN IP addresses** are listed, it means the router is getting a connection from the modem (your ISP). Try to see if you can go onto the internet by reopening your internet browser and input a website URL. If you still cannot get online, please see **FAQ**. If you do not get any numbers and they are all 0.0.0.0 please continue with the installation.

5. Most of DSL internet service providers have **PPPoE** type of connection. Bubble in '**PPPoE**' as your '**WAN Connection Type**' and it should bring down a longer menu with '**PPPoE Account**' that is where you input your full primary e-mail address from your ISP (i.e. **username@domain.net**)

* Some DSL ISP use **only a username** as your **PPPoE Account** name

6. Next, type in the password for that e-mail account in '**PPPoE Password**'
7. '**PPPoE Service Name**', '**Dial on Demand**', and '**Auto Disconnect when Idle**' should be left as is. After finishing the input on the 'PPPoE Account' and 'PPPoE Password', press the '**Save & Restart**' button for the changes to take effect.
8. A '**Connect**' or a '**Disconnect**' button should appear after the '**Save and Restart**'. If it appears to be 'Connect', then click on the 'Connect' button and the router will try to communicate with your ISP. Once the process is finished, the 'Connect' button will become a 'Disconnect' button and if a 'Disconnect' appears, then it means you're already on the internet and ready to surf the net.

Aftermath

Congratulations, you have just successfully installed the EE-400r. You should notice after the connection has been established, the '**Broadband Router Status**' page will display a list of '**WAN IP Addresses**'. This shows that there has been a connection going through the modem and the router. After this point, you don't have use your DSL dial up software no more on your computer.

Note If no connections were made or the ISP did not establish a connection to your EE-400r, please refer to our **FAQ** page. Thank you.

Part 3 Macintosh Users

Section 1

Since Macintosh uses the same type of internet browser (Internet Explorer, Netscape etc.), users can follow the same procedures provided under **Part 1** (for cable broadband internet services) or **Part 2** (for DSL/PPPoE based internet services). Some Macintosh based Operating System might require some changes under its configuration. The steps below will most likely allow your Macintosh system to communicate with the EE-400r after the changes have been made.

Section 2

(For **Macintosh OS 8.0 & 9.0**)

1. Boot up your Macintosh computer
2. Make sure all cables are plugged in and all the proper lights are on
3. Click on the '**Apple**' icon to bring up the menu
4. Click on 'Control Panel'

5. Then click on '**TCP/IP**'
6. Make sure Ethernet is selected where it says '**Connect as**' and change the configuration to '**DHCP**'
7. Leave the '**DHCP Client ID**' blank and close it
8. Make sure click Save button at the end
9. Please restart your Macintosh system for the changes to take effect
10. After the Mac is up and running, open up your web browser and type in this address: '**http://192.168.8.1**' and follow the instructions under **Part 1** and **Part 2** to continue the installation.

Section 3

(For **Macintosh OS X or 10.00**)

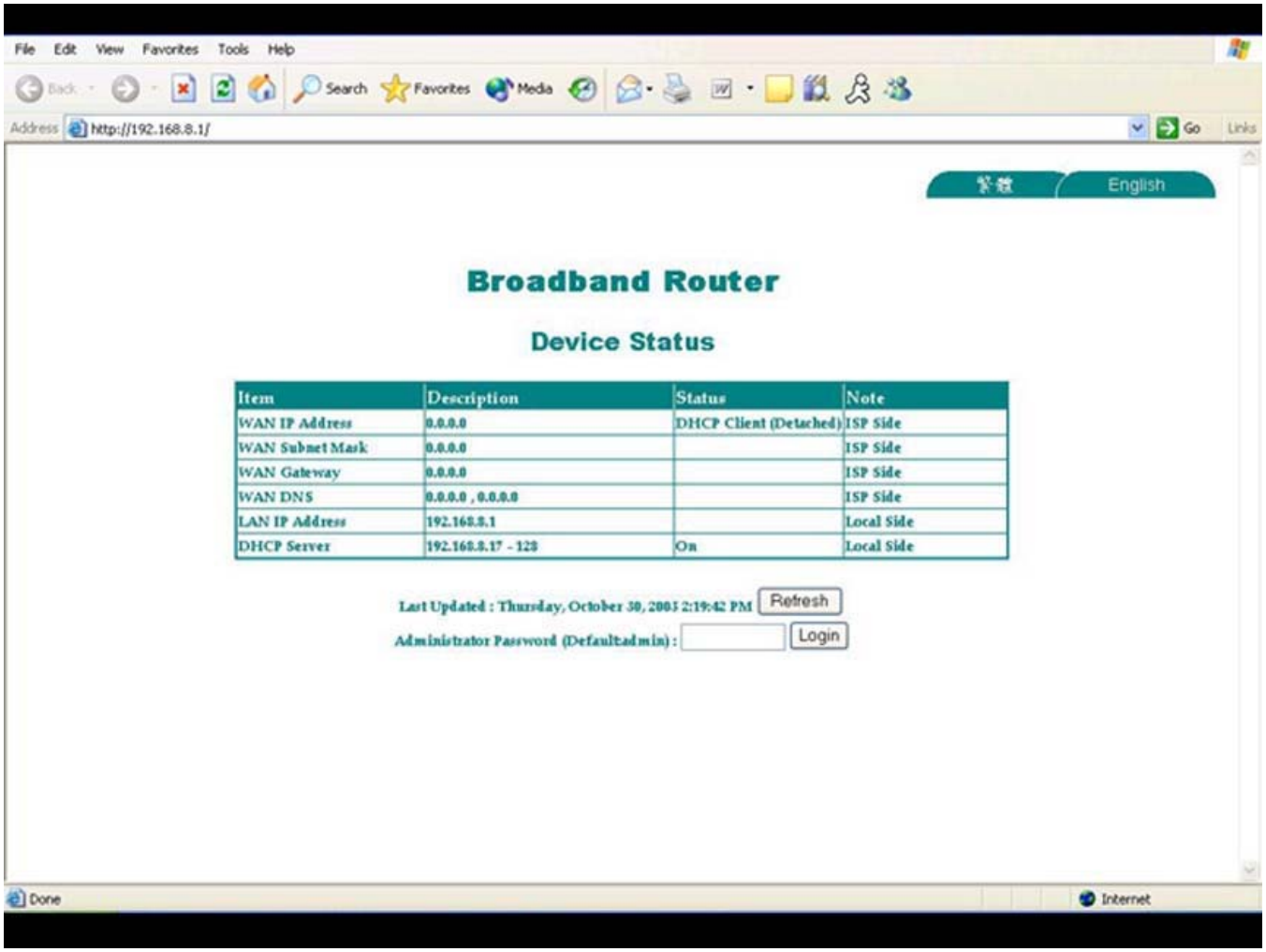
1. Boot up your Macintosh computer
2. Make sure all cables are plugged in and all the proper lights are on
3. Click on the '**Apple**' icon
4. Go to '**System Preference**'
5. Click on '**Network**' and choose '**New Location**'
6. Select your Ethernet card under the first configuration box
7. Pick the '**TCP/IP**' tab and change it to '**DHCP**'
8. Click on '**Apply**' to save the settings that you have just changed.
9. A reboot of the system might be required for the changes to take effect

Note Once the settings have been changed, the Macintosh computer should be able to log onto the router's configuration page and setup for the above 2 sections for your specific type of internet connection. Please read through our FAQ guide if further assistance is needed on setting up a Macintosh. Thank you for your patience.

Chapter 3 – Basic Configuration

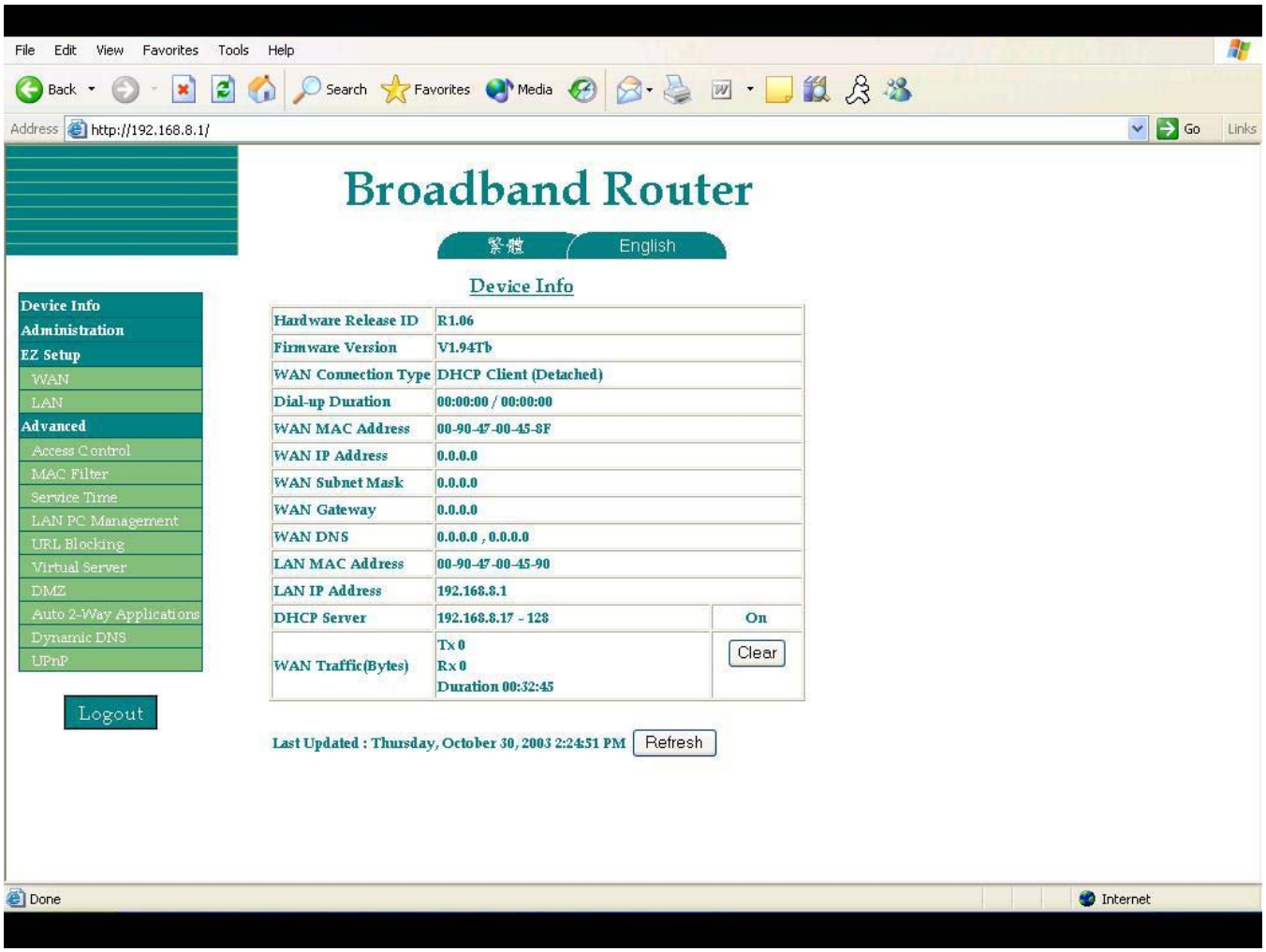
The next chapter will explain in details of how each function on the router works. It will be split a total of **5** sections. Each section will tell you some of the most common and some advanced usages on a router. Users can take advantage of this section to suit their own best settings on the router.

Section 1 – Broadband Router Device Status


File Edit View Favorites Tools Help
Search Favorites Media
Address http://192.168.8.1/
Go Links
English
Broadband Router
Device Status
Item | Description | Status | Note
WAN IP Address | 0.0.0.0 | DHCP Client (Detached) | ISP Side
WAN Subnet Mask | 0.0.0.0 | | ISP Side
WAN Gateway | 0.0.0.0 | | ISP Side
WAN DNS | 0.0.0.0 , 0.0.0.0 | | ISP Side
LAN IP Address | 192.168.8.1 | | Local Side
DHCP Server | 192.168.8.17 - 128 | On | Local Side
Last Updated : Thursday, October 30, 2003 2:19:42 PM
Refresh
Administrator Password (Defaultadmin) :
Login
Done
Internet

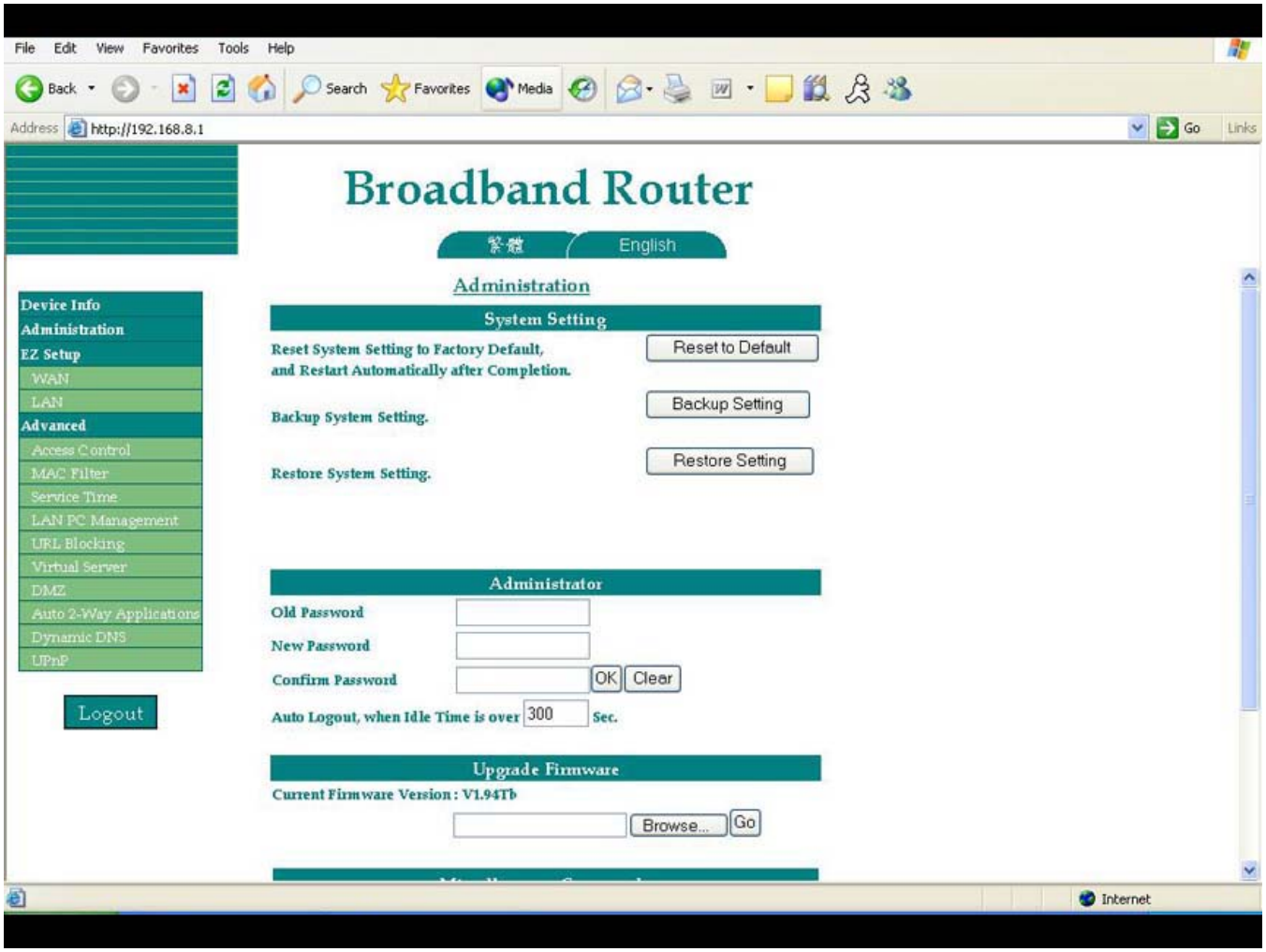
Note this page will be displayed after you have entered: http://192.168.8.1 under your internet browser. The '**Device Status**' page tells you what are the current IP addresses you're getting from: Your ISP (Internet Service Provider), your router, and the last log on that was the 'Refresh' button will reset it back to your current login. Press '**Administration Password**' is where you enter the password to log into the router's configuration page. By default the password is '**admin**' and it is case sensitive. The password can be changed under 'Administration' page once you're logged into the router page. After you have input the password, click on the 'Login' to enter the next page.

Section 2 – Broadband Router Device Info (Continued)



After you entered the password for the 'Administration Password' and have logged onto it, a page like this will display. It is similar with the previous page but with more options to choose from. On the left side is where you adjust/change settings for your router. The middle (Device Info) tells you exactly what the current **version of firmware** is running and if you are getting IP addresses from outside or within your network. The details of each selection on the left of the page will be described as we move on to the next sections.

Section 3 - Administration (Part 1)



This page allows you to change some of the most commonly used items on a router.

Reset to Default – By clicking this it will give you a confirmation on whether or not the router should be reset back to the factory default setting. If you have accidentally changed a setting on a router and does not remember the setting you previously had, then it is suggested that you click on 'Reset to Default' button.

Backup System Setting – This option allows storing your current settings by saving it onto your hard-disk. It **saves** the current settings on the router to your computer.

Restore System Setting – User can obtain the router settings from here after the user has saved the information on the router. This option can **load** previous settings from the hard-disk.

Old Password/New Password/Confirm Password – This section allows the user to **change** the administration password on the router. A user can change the default password 'admin' to a different password for security reasons. (**Strongly recommended**)

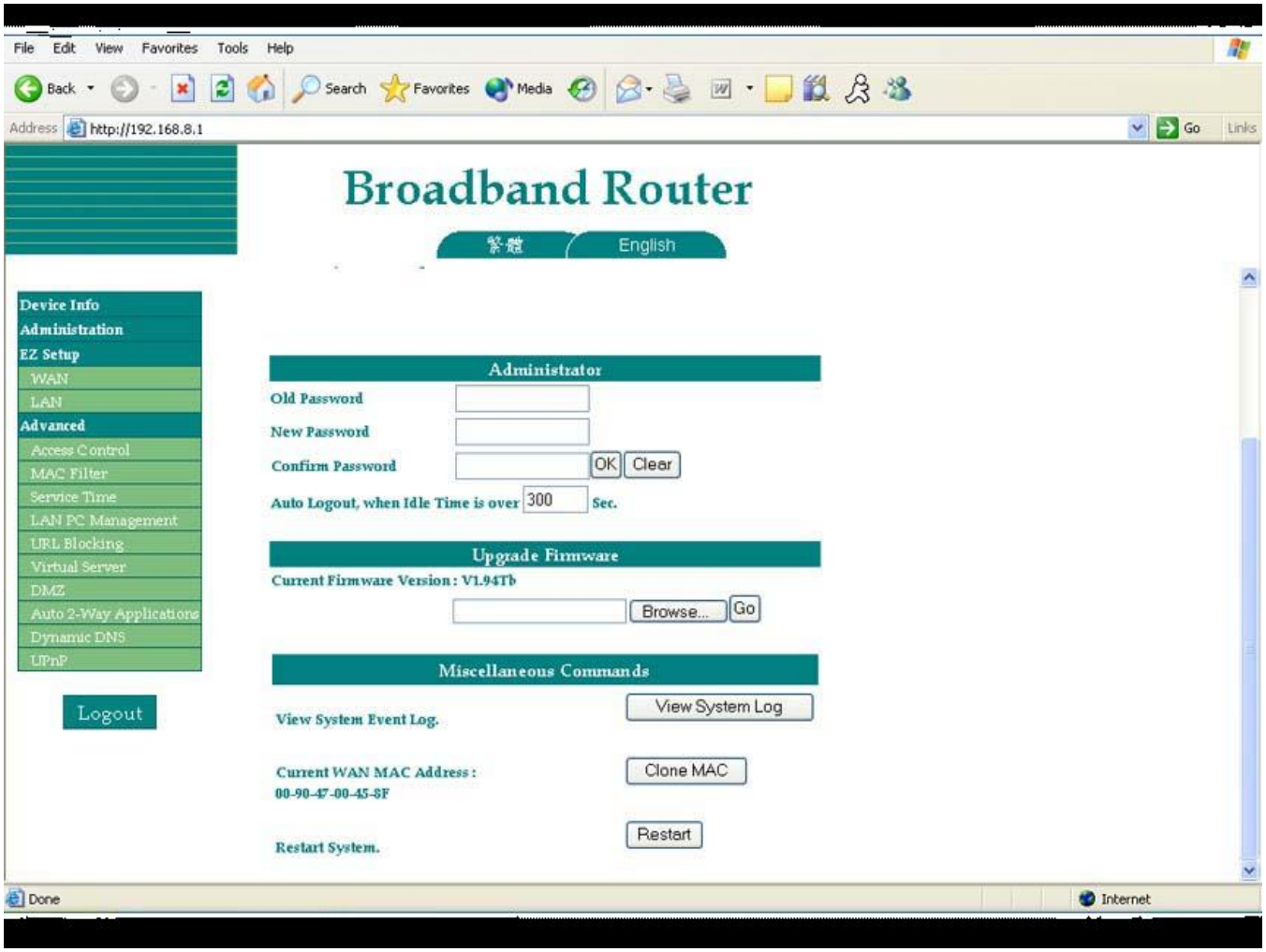
Auto Logout, when Idle Time is over: - You can change the amount of time for the router to take before it automatically logs out itself if there is an idle occurred.

Upgrade Firmware – This is the place to update the firmware on the router. Once the user has downloaded the firmware off of our website www.gigafast.com and saved onto a floppy or a hard-disk (hard drive):

1. Click on the '**Browse**' button
2. Locate the firmware (file) where the user stored (Floppy, hard-disk) and click on the '**Go**' button.

__Note__ this process should take a few moments. If the update is a success or a failure, it will give you a confirmation on either one of the events. Do not turn off the power of the router during the update firmware process. If a user gets such error "**Update failed**" then please refer to our **FAQ** guide.

Part 2 (Administration Continued)

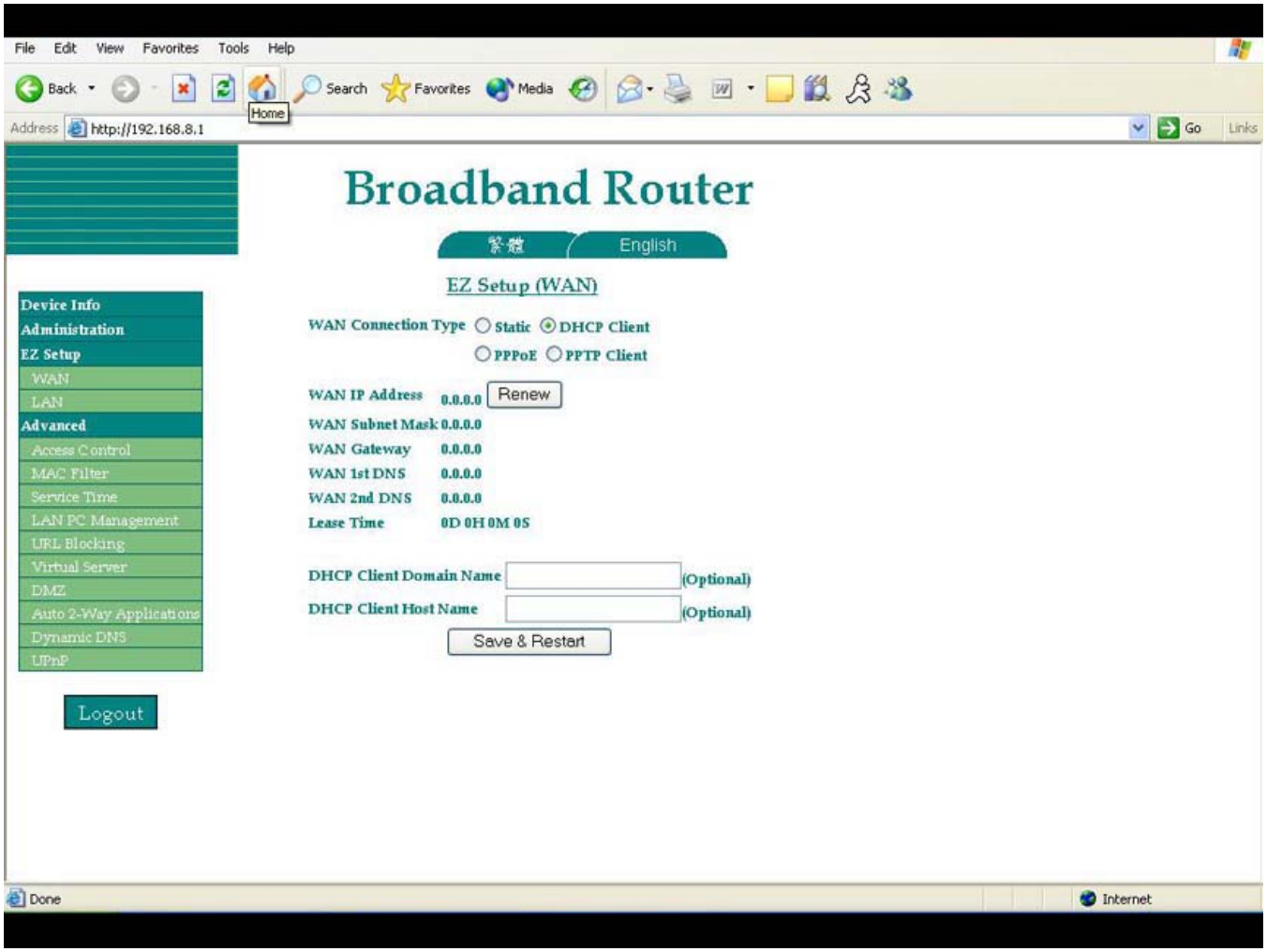


View System Event Log – Allows users to view the most recent events that have happened. For example, each time when a user logs onto the ISP (Internet Service Provider) it will record it under the log. It will be erased every time the router is unplugged, and plugged back in. This function provides administrator a convenient diagnostic method for troubleshooting. It also records the detailed intruder information for analysis. Press REFRESH button to display the latest events.

Clone MAC – This allows the router to a copy of the Ethernet adapter's MAC address. It is used only when a user have trouble connecting to the ISP (Internet Service Provider). Please refer to our **FAQ** guide for further explanation.

Restart System – This option will refresh the router if there were any changes made. Force router to do a system restart immediately. It is not commonly used.

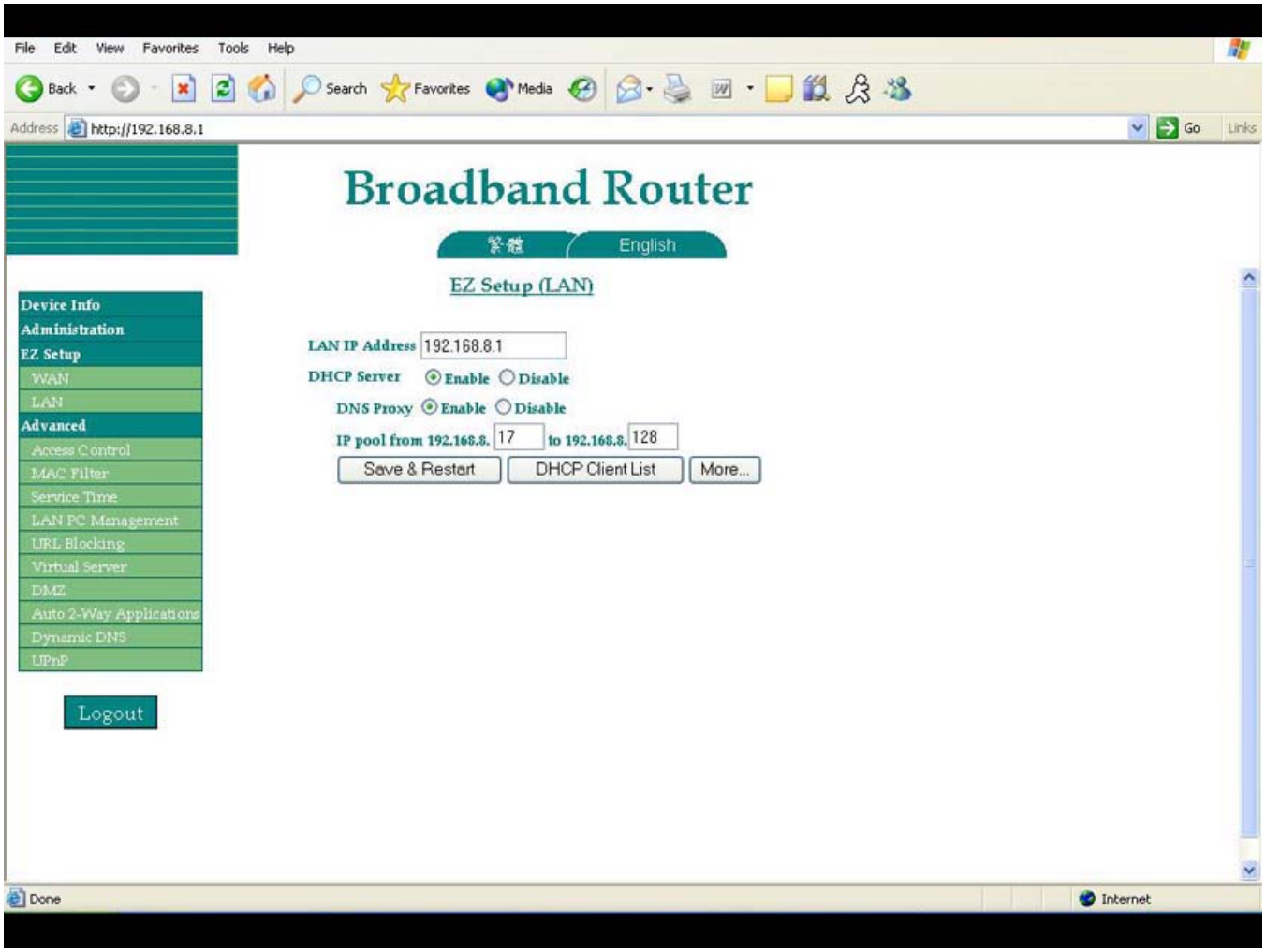
Section 4 – WAN (Wide Area Network)



WAN Connection Type – This section allows the user to set the proper type of WAN connection is being used. By default the '**DHCP Client**' is bubbled. Each type will give you some other options. For example: After the 'PPPoE' is bubbled, it will give you extended options like: PPPoE Account, PPPoE Password to fill out (Read Chapter 2_Part 2_Section 2) Once the settings are provided, make sure you click on the '**Save & Restart**' button for it to take effect.

Note the '**DHCP Client Domain Name**' and '**Host name**' is optional. It is not commonly used so users can avoid this unless the ISP demands it.

<u>Section 5</u> – LAN (Local Area Network)



LAN IP Address – This shows the current IP address on the LAN side. If a user is running a static IP and cannot log onto the router page, then changing the LAN IP Address might be needed. By default the LAN IP Address is **192.168.8.1**

DHCP Server – This allows the user to enable or disable the DHCP Server running on the router. It is not recommended to change this feature unless the network demands it. For

example: If you're running a static IP address on the network and DHCP is not allowed or needed, then disable it as needed. By default the DHCP Server is **enabled**.

DNS Proxy – If a user has a DNS Proxy that was set previously and would like to use it without having conflicts with the router, then it is recommended to disable this feature. By default the DNS Proxy is **enabled**.

IP pool from & to – DHCP server will offer unused IP from the IP address pool to the requesting computer. End address must be greater then initial address. By default the range is set at: **17~128**

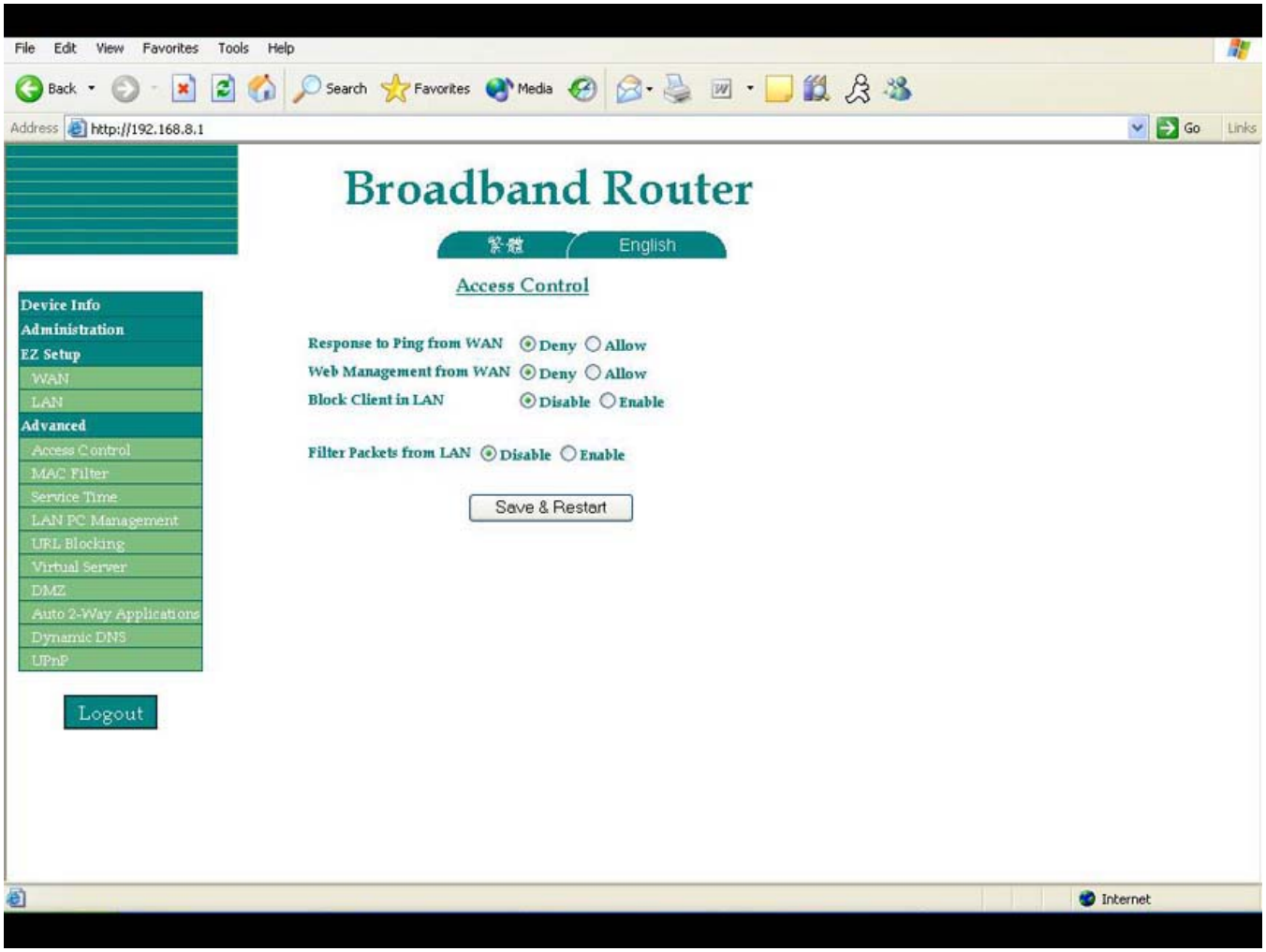
DHCP Client List – This is a list of your DHCP IP address information. Example: what computer at which computer's name on what MAC address of the network card did receive what IP address.

Chapter 4 – Advanced Configuration

This chapter will explain great details of advanced settings on the router. A user can change these settings for their own needs and purposes or to fix some of the commonly known problems out there in the industry. It will be divided into total of **10** sections and it is recommended and accessible for both home and business users. Please refer to our **FAQ** guide if there is an unexplained question regarding the functions on the router.

Section 1 – Access Control

Access Control allows you to set some of the security features for the administrator. It also gives the ability to access from outside to the router. Once the changes are made, click on '**Save & Restart**' to have the changes take effect.



Response to Ping from WAN – If this option is allowed, others can do a direct ping to the router from outside of your network. Due to security reasons this option is set to '**Deny**' by default.

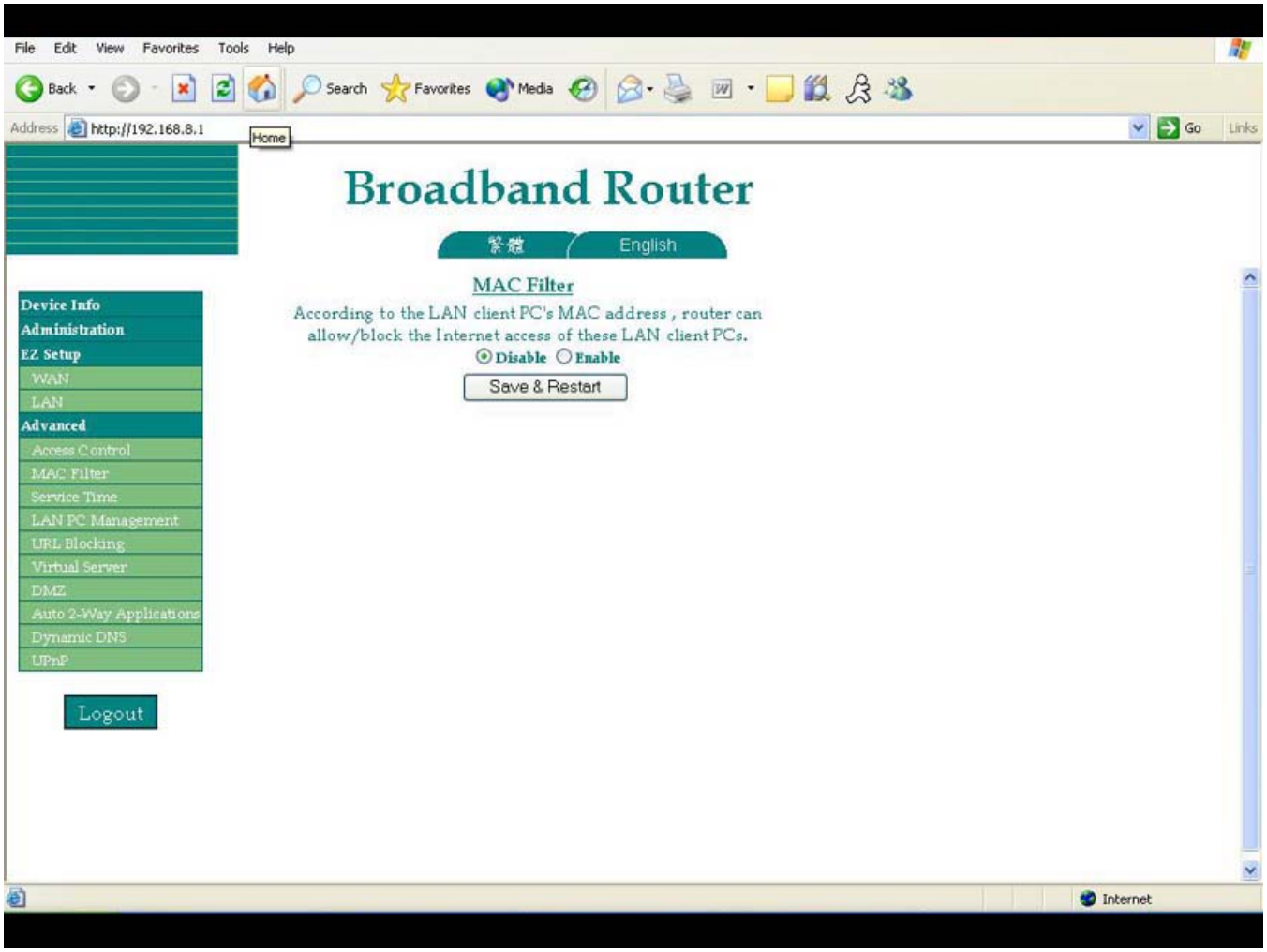
Web Management from WAN – Enable administrator to log in and configure the router remotely from internet. It is set to '**Deny**' by default.
Example: http://**yourwanip**:54321

Block Client in LAN – You can block certain **internet protocols** (IP's) within your own network and disallow other clients or computers to access other pages within the network. It is set at '**Disable**' by default.

Filter Packets from LAN – This option allows the administrator to block certain **ports** on the router so other clients can't access them.

<u>Section 2</u> – MAC Filter

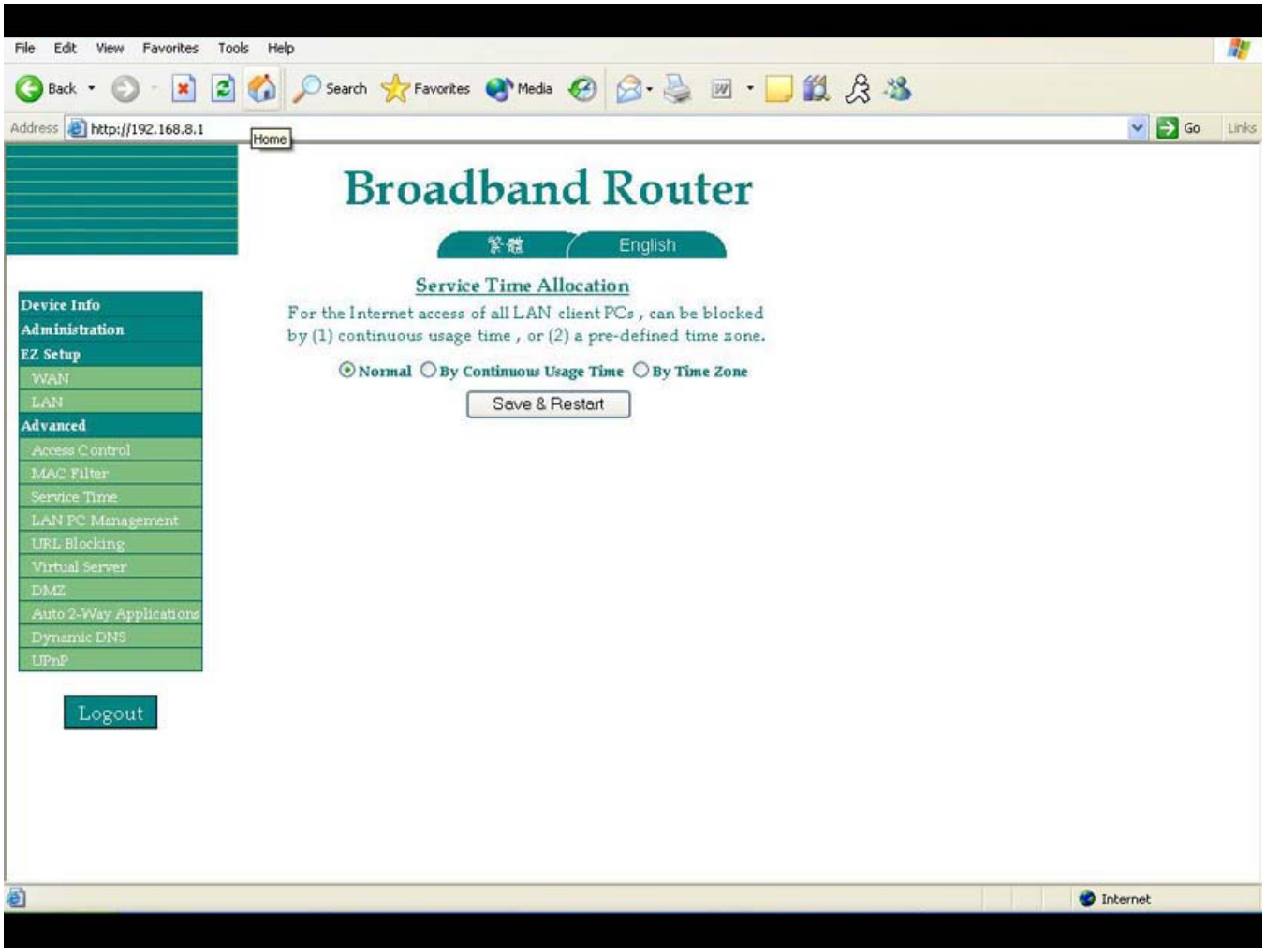
MAC Filtering will block or allow the MAC addresses that are on the Ethernet adapters. Administrator can enable this function to block or allow certain computers or the entire network to access the router or network.



MAC Filter – Enable it to set which MAC addresses the administrator would like to block so the blocked clients can't make changes on the router. The clients are still able to get onto the router, though without making any changes. This function is set at '**Disable**' by default.

Section 3 – Service Time

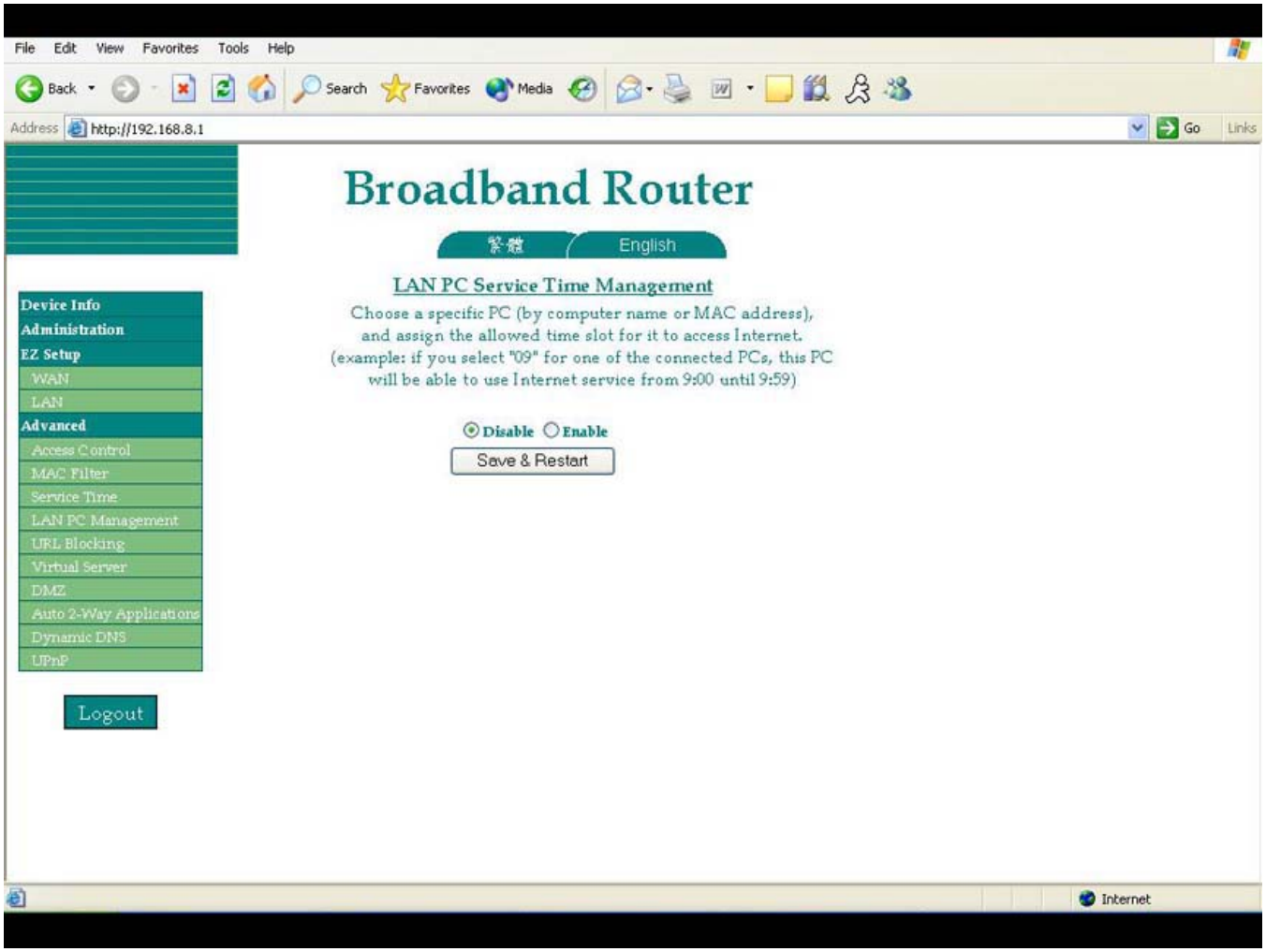
This page allows the administrator to set a time limit/duration of the router.



Service Time Allocation – Administrator can now apply a limit on all the clients or computers that are connected to the router. For example: If it is set from 9:00AM~12:00PM that means the clients can only log onto the WAN/LAN from between those times. Administrator can choose either by continuous usage time or by time zone. This option is set at '**Normal**' by default which means the connection is always allowed.

<u>Section 4</u> – LAN PC Management

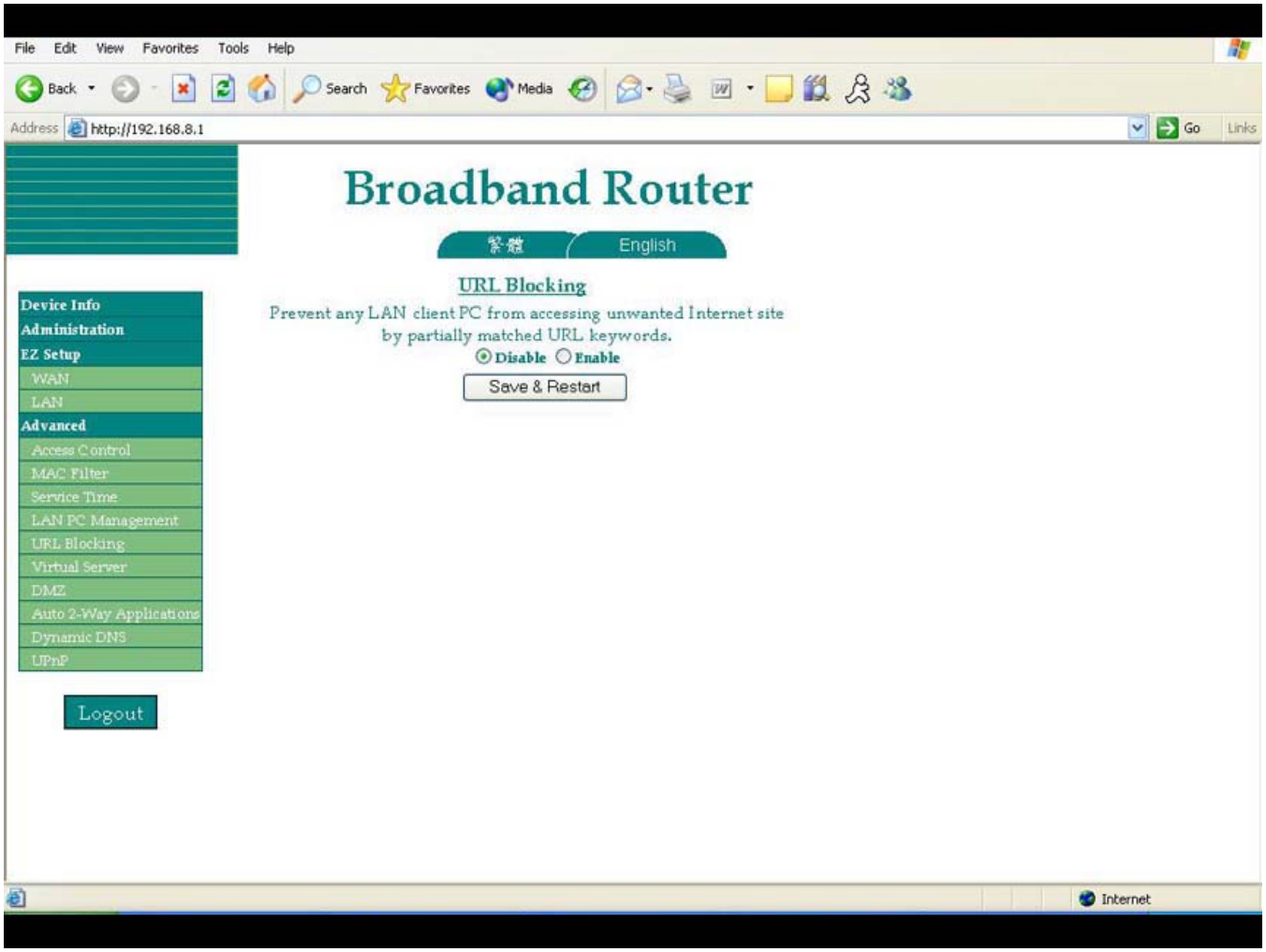
Similar to '**Service time Allocation**' but instead of changing the time, the administrator can block the access based on the 'Computer Names' and 'MAC Addresses'



LAN PC Service Time Management – By allowing/disallowing any particular computers to browse the WAN based on their MAC addresses and the computer names. MAC address can be found on the Ethernet adapters and the computer names are found under 'My Computer' under Microsoft Windows Operating Systems. By default this function is set at '**Disable**'.

Section 5 – URL Blocking

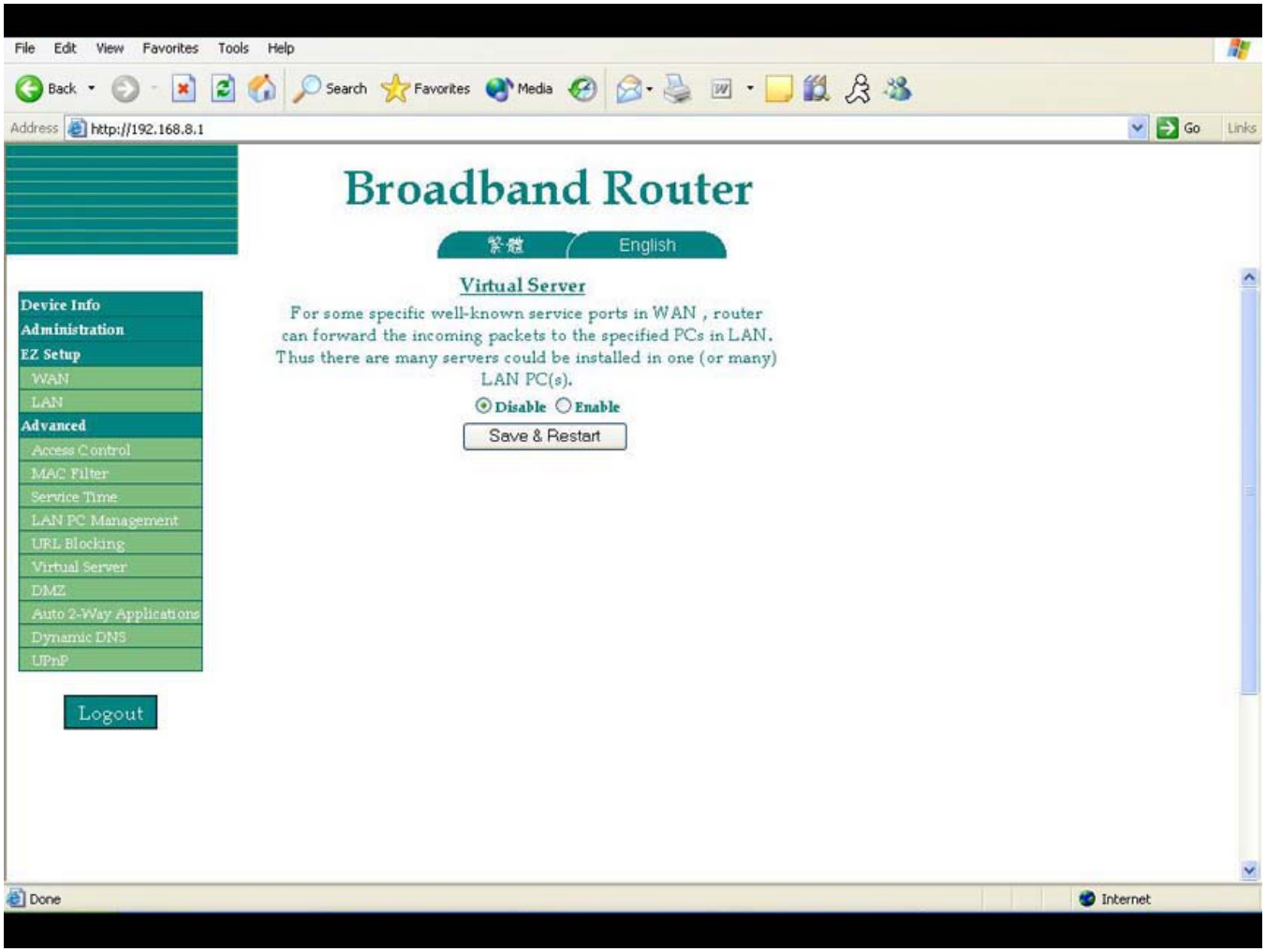
URL Blocking allows the administrator to block certain URL (web addresses) so clients cannot log onto the designated pages that administrator have blocked. By default this option is set at '**Disable**'.



URL Blocking – Administrator can enable this function and put in the URL of a page and clients will not be able to log onto it. User can block all the way up to 8 URLs.

Section 6 – Virtual Server

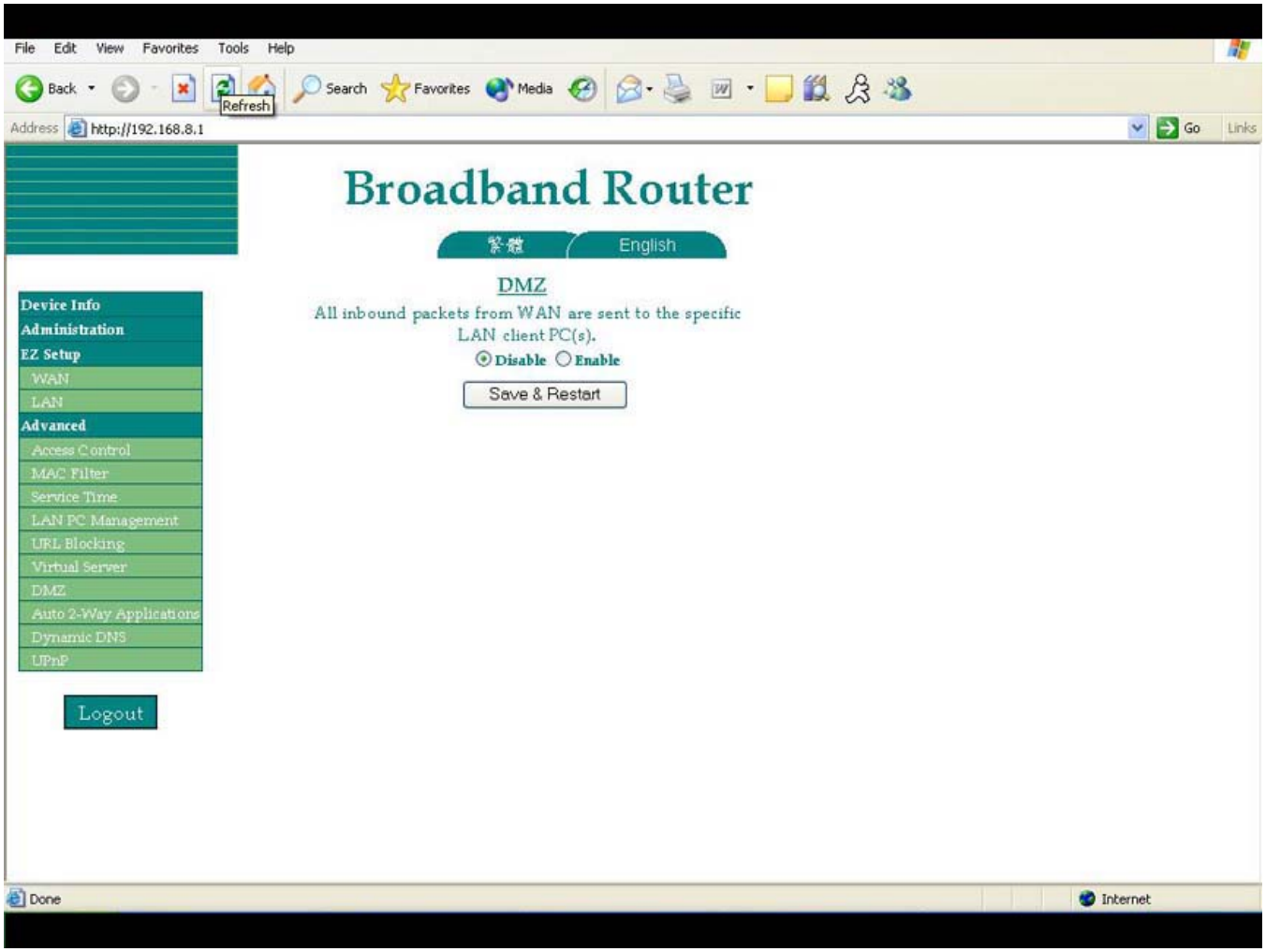
Virtual Server can allow the administrator to open one or multiple ports on the router for a LAN PC.



Virtual Server - If the user has a server behind the route he/she can open a particular port or ports to allow incoming and outgoing traffic through the router. This function is mainly for computers that are on the network. By default this setting is set at '**Disable**' if you have trouble opening ports please read our FAQ section to understand more about Virtual Server.

Section 7 – DMZ

DMZ (De Militarized Zone) allows the port on your computer to be seen outside of your network. It basically allows you to be shown on the WAN side. This function is mostly used for game or program specific purposes. In comparison with the virtual server, DMZ is not protected by firewall. Enable DMZ host are dangerous and subject to be attacked/accessed by internet intruder/hacker. However DMZ host is able to gain full access privilege right to internet.

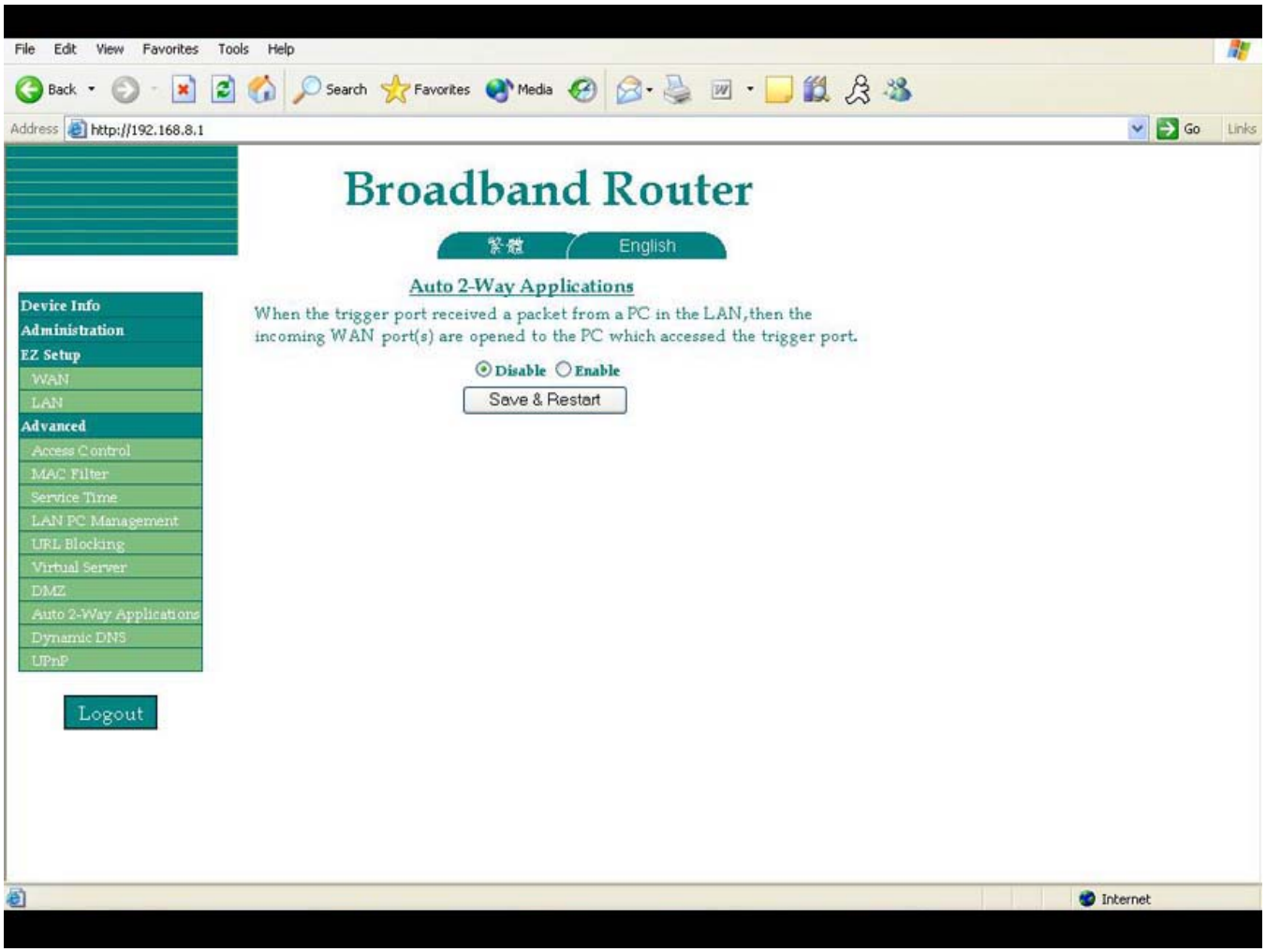


A. The Host DMZ – Enable it and input the last digit of your current IP address and it will open up you to the WAN side. For example: **192.168.8.XX** The **XX** marks the last digits from the IP address you're getting on that computer. If your IP address ends with 17, then put 17 in the empty box and click on 'Save & Restart'. Some users might have trouble getting the router to communicate with their game console servers (i.e. PlayStation2 by Sony or Xbox by Microsoft) and if that is the case then enable DMZ and it should allow you to enter the server after save & restart.

B. Multiple DMZ host – You can enable the Multiple DMZ host function, only when your current WAN connection is **STATIC.** This router allows 8 LAN PC at most in LAN to become DMZ hosts. The mechanism of multiple DMZ host is based on the mapping relation between WAN STATIC IP and LAN IP. These DMZ host IP will skip NAT port translation to gain unrestricted 2-way communication capability.

<u>Section 8</u> – Auto 2-Way Application

This section can let a user open certain service ports for software. Because there is much internet software need 2-way access right and they open many TCP/UDP ports simultaneously such as online game or audio/video conference. They always connect to an outside server with a fixed destination port. Then the server would communicate with the application in LAN by using a predefined incoming port or a specific range of incoming ports. If a user has trouble playing certain games and the games require a port to be opened, then Auto 2-Way Application is the place to enable ports for it.

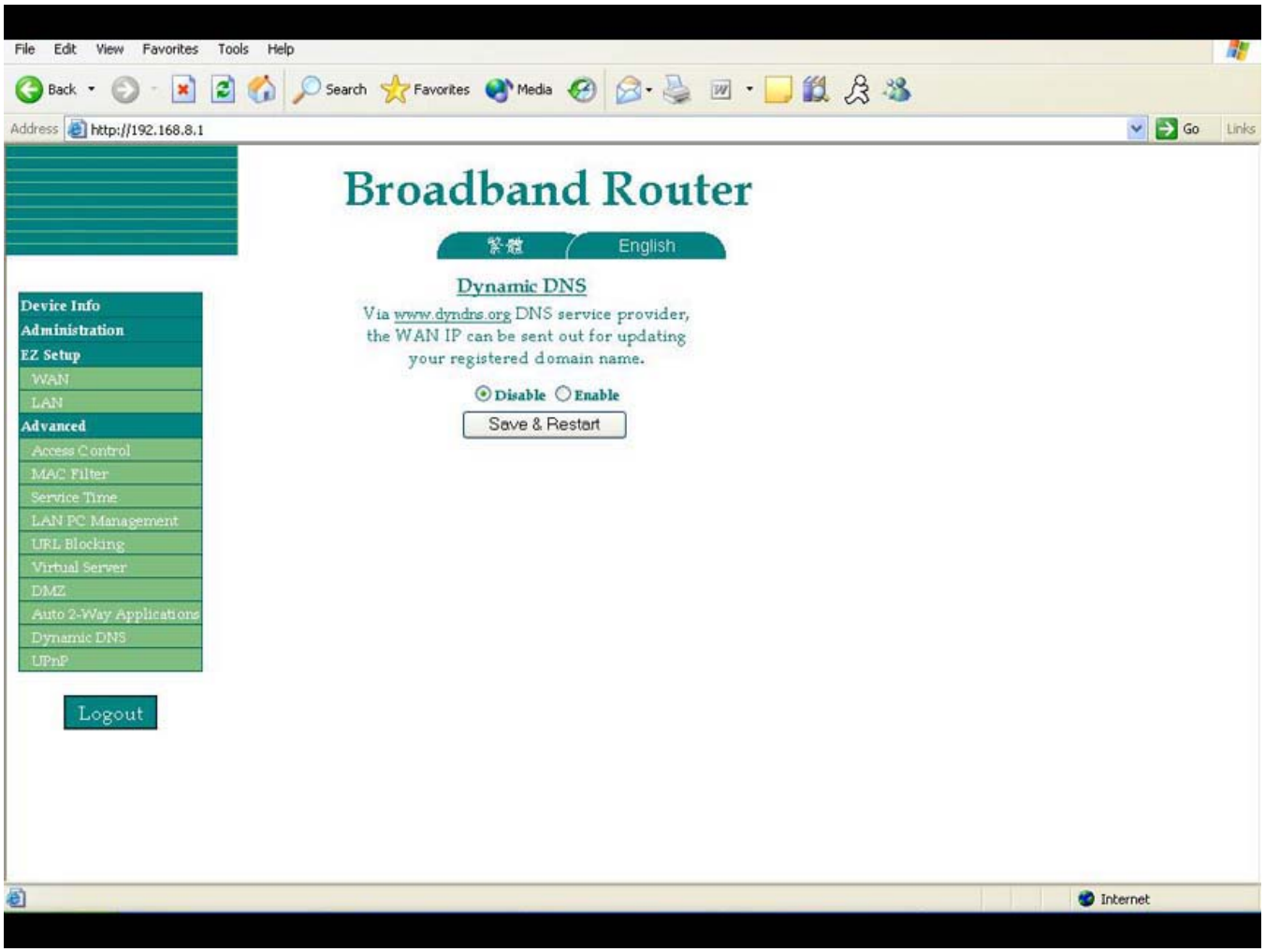


Auto 2-Way Application – Once enabled, put the outgoing port in the '**Trigger Port**' box and incoming port in the '**Incoming Port**'. All software, games have its ports to be opened. Obtain the port numbers and enter them under this section will allow the user to join any particular server without being kicked or timed out. Please go to your software website to obtain the service port information for your software. Once a trigger is occupied, the second or later LAN

PC should not use that trigger port until the first LAN PC has released it. Release means that the first PC doesn't use that trigger port for more then 5-6 minutes. By default this option is set at '**Disable**'.

Section 9 – Dynamic DNS

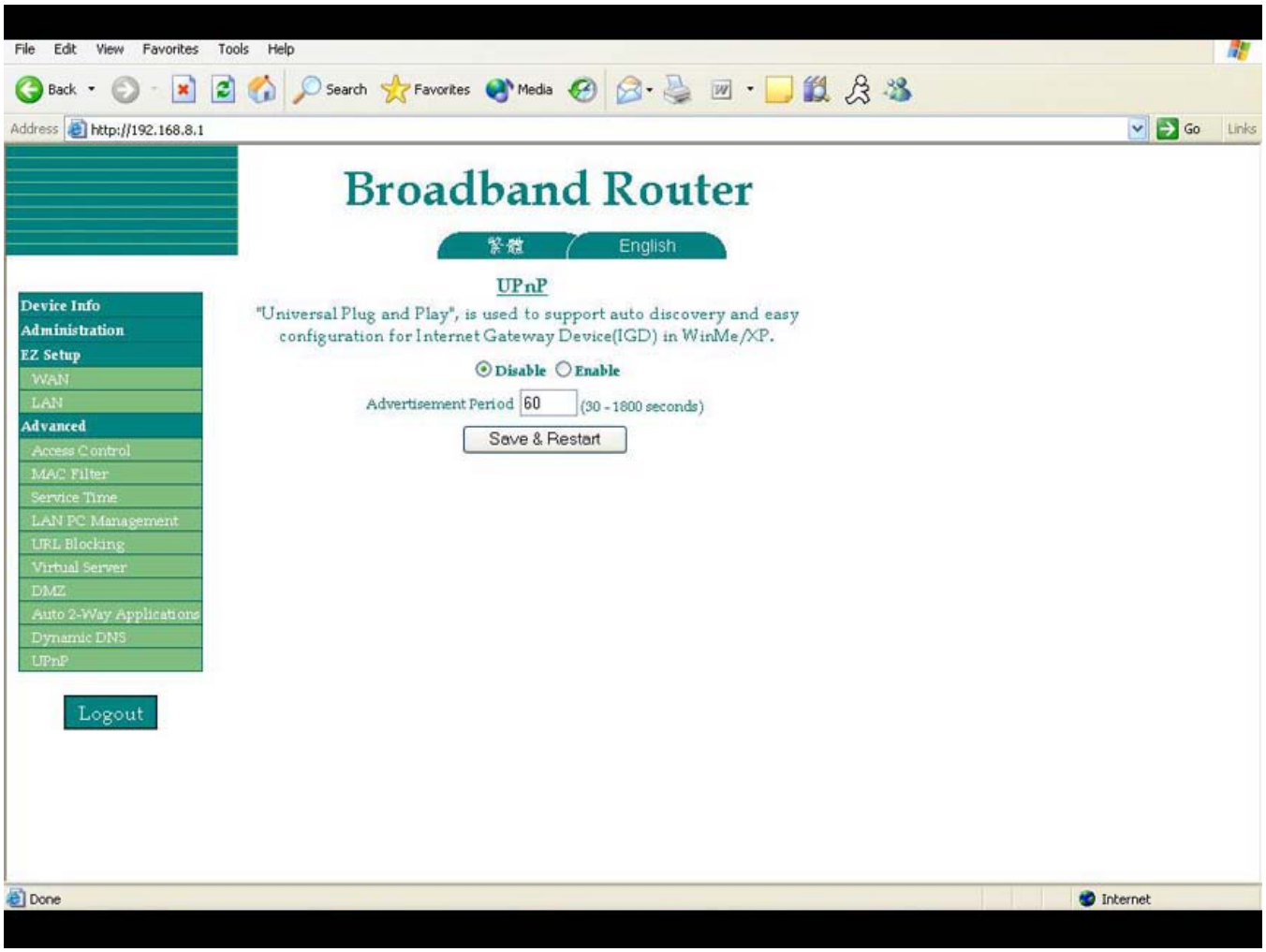
This option will automatically translate your domain name to your WAN IP address for others to access your page.



Dynamic DNS – If you don't have a domain name and a host setup then others will require a Dynamic DNS to log onto your webpage. This enables others to see you on the WAN side and allows them to browse your own page. Often the server will automatically update your WAN IP address, therefore the Dynamic DNS function allow the update to be saved so others can still browse your page without the changes to be made manually. For further information please visit: www.DynDNS.org and by default this function is set at '**Disable**'.

Section 10 – UPnP (Universal Plug & Play)

"Universal Plug and Play", is designed to support zero-configuration and automatic discovery device categories from a wide range of vendors. With UPnP enabled, the internet Gateway Device (IGD) could be discovered and detected by UPnP capable PCs. Thus IGD devices could be easily managed by windows system. It recognizes a hardware be plugged into the router and function as one. This function will only work under **Microsoft Windows ME & XP** based Operating Systems.



UPnP – Once it is enabled, this function will allow the software on the hardware device to have a time limit before it's recognized as a device. Basically this allows the Windows ME/XP to access the router's configuration page (http://192.168.8.1) through 'Network Neighborhood' You can change the value by putting in a different number as long as it's between **30~1800** seconds (or 30 minutes). This function is not commonly used, so by default it is set at '**Disable**'.

Conclusion

This concludes the Basic & Advance Configuration for the EE-400r. The most common questions are answered based on these two chapters. If you need further assistance or

perhaps require more information then please visit our **FAQ** guide or contact one of our lines listed below.

Tech Support: techsupp@gigafast.com or 1(888)433-6788
RMA/Replacement: rma@gigafast.com or 1(866)964-2970
Customer Service: customerservice@gigafast.com

Thank you for choosing GigaFast

Chapter 5 – Frequently Asked Questions (FAQ)

Still having trouble setting up this router? Please read the following questions and answers to solve your problems with the router.

Q: I can't seem to log onto the 'Broadband Router Configuration' page (http://192.168.8.1)

A: If you have already followed the instructions from the manual and still can't log onto it:

1. Please do a power reset on the router. For example: Turn the router off for few minutes and turn it back on.
2. Use a paper-clip or a pin to do hardware reset the router. On the router there should be a pin sized hole and that is where you insert the pin. Once the pin is inserted, hold it down for 5 seconds and you should see the lights on the router flash for a moment.
3. Try to ping http://192.168.8.1 if you can receive an IP but can't ping the router that means the router might be defective. Perhaps try another cable or different port on the router.
4. Make sure you have the same subnet mask between the computers and the router.
5. If you did a ping on the router and gets a reply like 169.xx.xx.xx, that means the Ethernet cable might be bad (or check your Ethernet card for proper installation).

Q: I have followed the 'Quick Install' but still can't get my router to work with my Internet Service Provider.

A: Check the following:

1. Make sure the Ethernet cable is working.
2. Make sure the lights on the router are flashing (this indicates that there is traffic coming and going from the router to the modem).
3. See if the network adapter was installed properly and inserted into the slot on the motherboard correctly.
4. Confirm there is internet connection (WAN Connection) coming in from your ISP (or the modem).
5. Double check the WAN IP addresses on the router. If the WAN IP addresses are shown but can't connect, that means the source is being blocked from the operating system by software or perhaps hardware. Occasionally the anti-virus or firewall programs might stop an IP from coming in and going out of the network. Disable the software if you have one and try again.

__Note__ if you're not getting the router's IP or a WAN IP address after you plug the cables into the router and to the computer, then do an IP release and renew. To do this:

(**For Windows 95, 98, ME**)

1. Go to '**Start**' > '**Run**' and type in: '**winipcfg**' and press '**Enter**' or click '**Ok**'
2. It should bring a dialog up and give you a list of network adapters you have on that system you're using.
3. Select the Ethernet adapter that is connected to the router and click on '**Release All**' (this should take few moments and upon completion it'll give you all 0's).
4. After the IP has been released, click on '**Renew All**' (this will refresh the IP addresses on the computer).
5. If the IP address says: 192.168.8.XX then that means there is a connection between the modem and the router.

(**For Windows 2000, XP**)

1. Go to '**Start**' > '**Run**' and type in: '**command**' and press '**Enter**' or click '**Ok**'
2. This should bring up your MS-DOS Prompt
3. At the prompt, type in the following: **ipconfig /release** and press '**Enter**'
4. After the process has finished, type in: **ipconfig /renew** and pres '**Enter**'
5. This will refresh your IP addresses

To do a proper power-cycle/reset on the router, modem, computer:

1. Turn the devices listed above off
2. Turn the router back on after few minutes
3. Turn the modem back on after few minutes
4. Use a paper-clip or pin and reset the router. Insert the pin and hold down the button for five seconds
5. Turn back on the computer(s) and see if you can go online

Q: Does the router come with firewall protection?

A: Yes, a built-in hardware firewall is placed inside of the router. It protects intruders hackers from vandalize your information.

Q: Can I turn the firewall function off?

A: You can't turn the firewall off, but you can make yourself seen on the WAN side. To do this, just enable '**DMZ'** and that should allow others to see you or your server.

Q: Everything works great on the router, but for some reason the router keeps dropping my connection once in a while.

A: If that is the case, please update the firmware on the router to the latest version available on our website: www.gigafast.com and go to support then choose the proper model number

(EE-400r) to download the firmware for the router. If this still doesn't solve the problem then please contact our tech support line.

Q: I'm trying to play games online with the router, but it won't let me.

A: Try to enable '**DMZ**' and see if that helps. Put the last two digits of your current IP Addresses into the empty box under DMZ and click on '**Save & Restart**' Restart the computer afterwards. If DMZ does not help that means the game server might need you to open some ports for the router to play. Get the port numbers and go to **Part 2** of this **FAQ** to find out more information on how to fix this issue.

Q: I have a Motorola Surf Board Series modem and after I plugged the cable from the modem to the router's WAN port, the WAN light doesn't seem to light up and can't log onto the internet.

A: Unfortunately the Motorola Surf Board Series modem (3100, 4100, 4200 etc.) is not compatible with our router until you upload the WAN fix for the router. Please go to our website: www.gigafast.com or send us an e-mail regard this problem and we will send you a copy of the WAN fix immediately.

Q: Does the router work with AOL Broadband Internet Service?

A: Unfortunately AOL (America Online) uses a different Proxy setting. It requires upon log on and the router can't bypass that. We might have a firmware update for this issue later in the future.

Q: Is there a way to boost my internet connection to have a faster download/upload speed with this router?

A: A router does not provide the bandwidth from your ISP. Your ISP decides how much bandwidth to be produced and sent in and out of their servers. Disabling the anti-virus program or third party firewall programs might help a little bit, but it is up to personal preferences.

Q: I have two computers or more and one of them is able to go online but the other one says "IP Conflict" or just can't go online?

A: If you have an IP conflict within the network, do an IP release and renew then restart the computers to see if that helps. If only one of the computers does not work, then do the IP release and renew on that particular computer. If none of it helps, turn the router off and turn it back on after few minutes. If problem still exists, update the firmware on the router.

Q: I have tried to update the firmware on the router but it keeps telling me "Update Failed"

A: You might have downloaded or received the wrong firmware. Check the bottom of the router and look for a serial number (it usually starts with an '**A**' or a '**B**'). Then send us an e-mail and we will send you the correct firmware. If you are a MAC user, please always use IE browser to do the firmware update. If you have a OS/X, you can also use SAFRI browser to do so.

Q: My router allows me to send e-mails out but doesn't allow me to receive e-mails or the other way around, why?

A: This usually happens when the **MTU** (Maximum Transfer Unit) on the router is different than the one your ISP provided. Please contact your ISP and get the correct value of the MTU and upgrade the firmware afterwards. Once the firmware is updated:

1. Go to the router's configuration page (http://192.168.8.1)
2. Once you're there, log in with the administrator password ('admin by default)
3. After you have logged in, type **mtu.cgi** at the end of the address. It should look like this: http://192.168.8.1/mtu.cgi (* require firmware v1.52 and up)
4. Once you have successfully logged onto the MTU setup page, input the MTU values your ISP have provided you and click on 'Save & Restart

Q: The router and computers works fine, but for some reason when it tries to load web pages it would take a long time before it completes?

A: Try to update the firmware on the router first. Check and see if there is third party program running in the background that is eating up your resources. Also, check and see if the router is overheating or hotter than usual. It is better not to have the router on the carpet floor or inside of none air-flowing environment.

Q: My router was working fine for a while and all of sudden it stopped working, what should I do?

A: If you have moved to a different place or perhaps changed to a different ISP, try the 'Quick Install' and see if that helps. If the lights on the router went out and doesn't flash anymore then most likely the router might be defective.

Q: How do I setup a VPN (Virtual Private Network) PPtP?

A: Please note that this router supports only **PPtP Packet Pass-Through**. First you need to understand that there are three protocols of VPN software. They are the following:

1. **PPtP** (Point to Point Tunnel Protocol) → supported
2. **L2tP** (Layer 2 Tunnel Protocol) → not supported

3. **IPSEC** (Internet Protocol Security) → not supported

   The router itself does not have a VPN function. It is allowed **PPtP Packet Pass-Through** once the router has updated the firmware to **version 1.91** or above. To setup a **PPtP Packet Pass-Through** on the router, please go to:

   1. Virtual Server under the router's configuration page.
   2. Open service port **1723** for your VPN server (IP address).
   3. Click on '**Save & Restart**' to take effect.

The steps above will allow the packets to pass through. Reason for this is because if this function is not enabled, the router will automatically block the packets that are coming and out of the router.

Q: I have several static IP addresses and would like to run them with my router, how can I do that?

A: First off you have to go to the router's configuration page (http://192.168.8.1):

1. Go to '**WAN**' section under easy setup on the router page and bubble in '**Static IP**'
2. Input one of your static IP address in the box and click on '**Save & Restart**'
3. Go to DMZ section, you can enable up to 8 static IP address at one time

Appendix A : Cabling and Pin Assignment

A-1 RJ-45

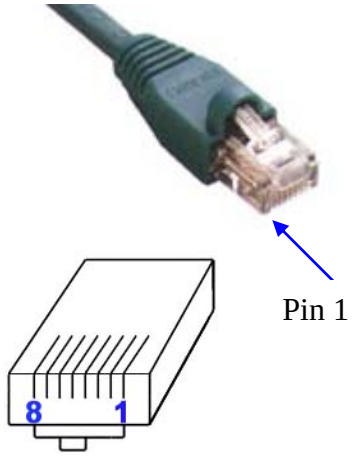
There are different grades, or categories, of twisted-pair cabling. Category 5 is the most reliable and is highly recommended. Category 3 is a good second choice. **Straight-through** cables are used for connecting computers' NIC cards to a hub. **Crossover** cables are used for connecting a hub to another hub. (The router provides a built-in uplink/normal switch. Uplink mode is crossed internally, which allows you to link or connect hubs together with a straight-through cable instead.)

A-1-1 RJ-45 pin assignment

There are 8 thin, color-coded wires inside, run from one end of the cable to the other. All 8 wires are used.

Table A-1

RJ-45 Color Chart	
Wire 1	White with an Orange stripe
Wire 2	Orange
Wire 3	White with a Green Stripe
Wire 4	Blue
Wire 5	White with a Blue Stripe
Wire 6	Green
Wire 7	White with a Brown Stripe
Wire 8	Brown



Note To determine which wire is wire number 1, hold the cable so that the end of the plastic RJ-45 tip (the part that goes into a wall jack first) is facing away from you. Face the clip down so that the copper side faces up (the springy clip will now be facing the floor), when looking down on the copper side, wire 1 is on the far left.

Connection between NIC card and Hub

In a **straight-through** cable, wire 1, 2, 3, and 6 at one end of the cable are the same as wires 1, 2, 3, and 6 at the other end. The straight through cable is used to connect the NIC card and the hub.

Table A-2

Straight Through Cabling		
Wire		Becomes
1	⇨	1
2	⇨	2
3	⇨	3
6	⇨	6

Connection between Hub and Hub

In a **crossover** cable, the orders of the wires change from one end to the other. Wire 1 becomes 3, and 2 becomes 6. The crossover cable is used in connecting hubs directly.

Table A-3

Crossover Cabling		
Wire		Becomes
1	⇨	3
2	⇨	6
3	⇨	1
6	⇨	2

Appendix B – Technical Information

Operational

WAN I/F	: One RJ-45 port, IEEE 802.3 100BaseT, CSMA/CD
WAN cabling	: UTP category 5 (10/100 Mbps).
LAN I/F	: Four RJ-45 ports, IEEE 802.3u 100BaseT, CSMA/CD
LAN cabling	: UTP category 5 (switched 10/100 Mbps).
LED indication	: Power, WAN Link/Act, 10/100
Button	: Factory default setting.

Environmental

Power Input	: External, DC 7.5V/1A.
Dimensions	: 255 x 185 x 93 mm (TBD)
Unit Weight	: 1050g
Certification	: FCC class B, CE mark
Operating Temp	: 0°C to 40°C (32°F to 104°F)
Storage Temp	: -20°C to 70°C (-4°F to 157°F)
Operating Humidity	: 10% to 85% non-condensing